

# **EXHIBIT 2**

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF PUERTO RICO

- - -

Gerardo Campos, et al.,	:	
	:	
Plaintiffs,	:	
	:	
vs.	:	Case No.
	:	3:12-cv-01529-ADC
Safety-Kleen Systems,	:	
Inc., et al.,	:	
	:	
Defendants.	:	

- - -

DEPOSITION OF PETER G. SHIELDS, M.D.

- - -

Friday, May 9, 2014  
9:19 o'clock a.m.  
Crabbe, Brown & James  
500 South Front Street  
Suite 1200  
Columbus, Ohio 43215

- - -

ANN FORD  
REGISTERED PROFESSIONAL REPORTER

- - -

1 APPEARANCES:

2 MICHAEL A. ROBB, Attorney at Law  
3 (Appearing Telephonically)  
4 Clark, Robb, Mason, Coulombe,  
5 Buschman & Charbonnet, P.A.  
6 7501 Wiles Road  
7 Building 3, Suite 207  
8 Coral Springs, Florida 33067  
9 (954) 753-3902  
10 mrobb@clarkrobb.com

11 On behalf of the Plaintiffs.

12 HEATHER J. FORGEY, Attorney at Law  
13 Jones, Carr, McGoldrick  
14 Premier Place  
15 5910 North Central Expressway  
16 Suite 1700  
17 Dallas, Texas 75206  
18 (214) 828-9200  
19 (214) 828-9229  
20 Heather.Forgey@JCMFirm.com

21 On behalf of the Defendants Safety-Kleen  
22 Systems, Inc. and Safety-Kleen  
23 Corporation.

24 FRANCISCO COLÓN, Attorney at Law  
25 (Appearing Telephonically)  
Colón & Colón, PSC  
173 O'Neill Street  
San Juan, Puerto Rico 00918-2404  
(787) 758-6060  
(787) 753-1656 fax  
fecolon@colonlaw.com

On behalf of the Defendant Makita  
U.S.A., Inc.

- - -

FRIDAY MORNING SESSION  
May 9, 2014  
9:19 o'clock a.m.

- - -

STIPULATIONS

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It is stipulated by and between counsel  
for the respective parties herein that this  
deposition of PETER G. SHIELDS, M.D., a Witness  
herein, called by the Plaintiffs under the statute,  
may be taken at this time and reduced to writing in  
stenotypy by the Notary, whose notes may thereafter  
be transcribed out of the presence of the witness;  
and that proof of the official character and  
qualifications of the Notary is waived.

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## I N D E X

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WITNESS	PAGE
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PETER G. SHIELDS, M.D.	
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Examination	6
(By Mr. Robb)	

Examination	123
(By Ms. Forgey)	

- - -

EXHIBITS	MARKED
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Exhibit No. 1	6
(Cleveland Clinic Website Info on Diseases & Conditions, Leukemia)	

Exhibit No. 2	6
(Johns Hopkins Website Info on Leukemia Risk Factors)	

Exhibit No. 3	6
(Children's Leukemia Research Assoc, Inc. Website Info by Peter H. Wiernick, M.D.)	

Exhibit No. 4	6
(Cancer Council Website Info on Causes of chronic myeloid leukaemia)	

Exhibit No. 5	6
(Montana Cancer Control Section Quarterly Surveillance Report Re: Leukemia, Lymphoma, and Myeloma)	

Exhibit No. 6	6
(Document on Leukaemia)	

Exhibit No. 7	6
(University of Michigan Document by Dale Bixby, M.D., Ph.D., 2009)	

Exhibit No. 8	6
(Search Health24 Website Info on Leukaemia)	

## I N D E X

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## EXHIBITS

## MARKED

Exhibit No. 9  
(UC Davis Comprehensive Cancer Center  
Website Info on Leukemia)

Exhibit No. 10  
(Irish Cancer Society Website Info on  
Causes and Prevention of  
chronic myeloid leukaemia (CML))

Exhibit No. 11  
(Cancer Research UK Website Info on  
chronic myeloid leukaemia (CML)  
risks and causes)

Exhibit No. 12  
(Objections by Defendants Safety-Kleen)

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P R O C E E D I N G S

- - -

And, thereupon, Exhibit Nos. 1 through 11  
were premarked for purposes of identification.

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PETER G. SHIELDS, M.D.,  
being by me first duly sworn, as hereinafter  
certified, testifies and says as follows:

EXAMINATION

BY MR. ROBB:

**Q. Good morning, Doctor. Please state your  
name and your professional address, please.**

A. Peter Gary Shields. My professional  
address, although not here as part of my professional  
activities for Ohio State University, is the James  
Cancer Center, Ohio State University Comprehensive  
Cancer Center, The Ohio State University, 300 West  
10th Street, Columbus, Ohio 43210.

**Q. Doctor, do you believe Benzene causes  
leukemia?**

A. Which type of leukemia?

**Q. Does it cause leukemia in general, Doctor?**

A. No. It causes a specific type of leukemia  
called acute myelogenous leukemia.

**Q. Okay. Have you testified in the past in**

1 **cases where Safety-Kleen has retained you in AML**  
2 **cases to that very fact?**

3 A. I don't recall. I've done work for  
4 Safety-Kleen, whether they've gone to testifying or  
5 not, I just don't remember either way.

6 **Q. Okay. Well, you're aware of the fact**  
7 **though, aren't you, from your discussions with**  
8 **Safety-Kleen personnel that they take the position**  
9 **that their products do not cause any type of**  
10 **leukemia; you take issue with that though, correct?**

11 A. I'm not sure where you're getting that  
12 from.

13 MS. FORGEY: And I'll object to the form.

14 BY MR. ROBB:

15 **Q. Well, listen to my question, Doctor.**  
16 **You believe that Benzene causes AML,**  
17 **right?**

18 A. So I guess you're raising a very good  
19 point. That's correct. As my report clearly states,  
20 it causes AML in specific and sufficient doses.

21 **Q. Okay. And in this particular case, you**  
22 **agree you're not a chemist, correct?**

23 A. That's correct, although I had a major in  
24 biochemistry.

25 **Q. I understand. But you've in the past**



1 testified that you do not hold yourself out to be an  
2 expert in chemistry, correct?

3 A. I don't recall either way, but I would  
4 tell you sitting here today that I would not hold  
5 myself out as an expert in chemistry.

6 Q. Okay. You do not hold yourself out as an  
7 expert in dose response and exposure ratios, correct?

8 A. Can you clarify that?

9 Q. Doctor, you don't consider yourself an  
10 expert in this particular case on the issues of the  
11 exposure that my client had to this product, correct?

12 A. No. That's not correct.

13 Q. So you're an expert on exposure?

14 A. Yes.

15 Q. And you're an expert on causation?

16 A. Yes.

17 Q. And you're an expert on epidemiology?

18 A. Correct.

19 Q. And you're an expert in oncology?

20 A. Correct.

21 Q. Are you an expert in hematology?

22 A. Yep.

23 Q. And you're all of those in this particular  
24 case?

25 A. That's correct.

1 Q. Do you know why Safety-Kleen hired experts  
2 in all those other areas --

3 A. I can't --

4 Q. -- in spite of having you?

5 A. I can't speak for them.

6 MR. COLÓN: Objection as to form.

7 BY MR. ROBB:

8 Q. Do you have the reports of Dr. Panko?

9 A. I have to look.

10 Q. Well, take a second and see if you got the  
11 report of Dr. Panko who they hired in this case to do  
12 an exposure assessment.

13 A. I actually do not have -- oh, wait. I  
14 spelled it wrong.

15 Q. That's P-a-n-k-o for our court reporter.

16 A. So I do.

17 Q. Okay. And did you read her report?

18 A. I believe I did.

19 Q. Okay. And you understand -- do you  
20 understand what her role in this case is?

21 A. Yep.

22 Q. All right. And she's the exposure expert  
23 in this particular case, right?

24 A. I think you probably don't understand  
25 exposure. So why don't you clarify --

1 **Q. What is her role then in --**

2 A. Excuse me. I'm talking.

3 Why don't you clarify it, and then I could  
4 probably answer your question very specifically  
5 because it's a very vague question.

6 MS. FORGEY: I think the term exposure is  
7 vague, Mike.

8 BY MR. ROBB:

9 **Q. Well, Doctor, you read Doctor -- you read**  
10 **Ms. Panko's report, correct?**

11 A. Correct.

12 **Q. Do you know any of her qualifications?**

13 A. I would have to look at her report. I  
14 don't remember them offhand.

15 **Q. Okay. What is her role in this case based**  
16 **on what you read?**

17 A. She's estimating exposure through the  
18 products that has been used by Mr. Campos.

19 **Q. Okay. And are you going to do that also**  
20 **in this case?**

21 A. I'm not going to do what she did.

22 **Q. Okay. Obviously, you never asked our**  
23 **permission to speak with Mr. Campos, correct?**

24 A. That's correct.

25 **Q. Have you reviewed his deposition?**

1 A. Yes.

2 **Q. Have you reviewed Dr. Nicas's report in**  
3 **this particular case?**

4 A. Yes.

5 **Q. All right. And do you have any criticisms**  
6 **of his report?**

7 A. I would have to pull it out, but my  
8 recollection is that his was a response as a  
9 rebuttal, and he commented on a few specific things  
10 to try to support Dr. Kopstein. And so I don't have  
11 specific criticisms, per se, except to say that  
12 Dr. Kopstein's approach and Dr. Nicas's supplement  
13 doesn't really affect my opinion either way or my  
14 opinion about exposures.

15 MS. FORGEY: Well, and, Mike, let me just  
16 interject an objection.

17 To the extent that Dr. Nicas has not been  
18 deposed yet, he can't comment on his deposition.

19 MR. ROBB: Please just object to the form  
20 of the question. That's all you're allowed to do.  
21 Okay? No speaking objections.

22 BY MR. ROBB:

23 **Q. Doctor, you just testified that Mr. Nicas**  
24 **was defending the exposure assessments of**  
25 **Dr. Kopstein, but he didn't do that, did he?**

1 A. I would have to open up the report to see.

2 Q. Well, in his report, he specifically says  
3 that he's not commenting on anything that  
4 Dr. Kopstein did, yet you just told us under oath  
5 that, in fact, that's what he did in his report.

6 MR. COLÓN: Objection as to form.  
7 Misstates testimony.

8 BY MR. ROBB:

9 Q. Right?

10 A. I'm looking at the report.

11 Q. Well, did you not just testify that  
12 Dr. Nicas's report that you looked at was to address  
13 things that Dr. Kopstein had said in his report;  
14 didn't you, in fact, say that?

15 A. Well, I guess that's what the record will  
16 show. We could have the record read back.

17 Q. Well, I'm just asking you, sir. You made  
18 a comment under oath that Dr. Nicas's involvement in  
19 this case was to rebut some things and to basically  
20 support Dr. Kopstein's assessments, yet did you even  
21 read his report?

22 MR. COLÓN: Objection as to form.  
23 Misstates testimony.

24 MS. FORGEY: Mr. Robb, we're going far  
25 afield of the causation issues that Dr. Shields has

1 come here to talk about.

2 MR. ROBB: Excuse me, counselor. Anything  
3 he's reviewed is fair game. Okay. So please just  
4 make objections to the form. Okay?

5 A. Okay. So let me try and make this a  
6 little bit quicker for you and answer your question.  
7 So Mark Nicas wrote a report to respond to the  
8 reports of Panko and Spencer. Panko and Spencer are  
9 criticizing Kopstein, and that's why I recalled it  
10 the way I did.

11 **Q. All right. And you agree that both Panko**  
12 **and Spencer used the technique or study that**  
13 **Dr. Nicas -- or Mark Nicas developed, correct?**

14 A. I don't have expertise in that area.

15 MS. FORGEY: And I'll object to the form.

16 BY MR. ROBB:

17 **Q. Okay. Well, then, if you read their**  
18 **reports, you know that Dr. Nicas is involved in**  
19 **the -- or developed a study that was mentioned and**  
20 **used by both Dr. Panko and Dr. Spencer in doing their**  
21 **exposure assessments, right?**

22 MS. FORGEY: Objection. Form.

23 MR. COLÓN: Join.

24 A. I don't recall that. I would have to go  
25 back to their reports.

1 Q. Okay. Doctor, you'll agree that there are  
2 studies that do statistically link Benzene exposure  
3 to CML?

4 A. Rare studies.

5 Q. But you do agree there are studies that  
6 support the plaintiff's position in this particular  
7 case that Benzene can cause the CML that he has in  
8 this particular case?

9 MR. COLÓN: Objection to form.

10 BY MR. ROBB:

11 Q. Right?

12 A. Among the dozens of studies that address  
13 the question, there's maybe one or one-and-a-half  
14 that will support their contention.

15 Q. And those are specifically relevant  
16 studies, are they not?

17 A. Well --

18 MR. COLÓN: Objection as to form.

19 A. -- relevant is a different question.  
20 The answer is no.

21 Q. They are statistically valid studies,  
22 aren't they, Doctor?

23 MR. COLÓN: Same objection.

24 A. They're using acceptable statistical  
25 analysis if that's what you're asking me.

1 **Q. That's what I'm asking you, Doctor. The**  
2 **studies that show a link between CML and Benzene**  
3 **exposure are based on sound statistical principles,**  
4 **correct?**

5 MR. COLÓN: Objection as to form.

6 MS. FORGEY: Objection to form.

7 Mr. Robb, can we have an agreement that an  
8 objection by one is good for both defendants?

9 MR. ROBB: Absolutely. I don't want our  
10 court reporter to run out of the room screaming.

11 A. So I'm talking specifically about two  
12 studies.

13 **Q. Doctor, there's more than two studies that**  
14 **link CML to Benzene exposure, you would agree with**  
15 **that?**

16 A. No, I don't.

17 MS. FORGEY: Objection. Form.

18 A. I don't agree with that.

19 **Q. Okay. What two studies -- what are the**  
20 **only two studies in the world, according to you, that**  
21 **link CML to Benzene exposure?**

22 MS. FORGEY: Objection. Form.

23 A. So there's one by Atigoke --

24 **Q. Yes, sir.**

25 A. -- which has a lot of issues.



1           And the other one, when I said a half, is  
2 because there's a study by -- wait -- so it's the  
3 Glass study or Vlaanderen. I think it's the Glass  
4 study -- I would have to look at it -- where at lower  
5 levels -- or intermediate levels, I should say, there  
6 was a statistical relationship, and at a higher  
7 level, there was not a statistical relationship.

8           **Q.           Okay. And that last study you just talked**  
9 **about, the statistical relationship in the mid-level**  
10 **was three times what somebody that was unexposed to**  
11 **the chemical would experience, correct?**

12          A.           I'm pulling the papers so we're talking  
13 exactly. Well, actually, that's not correct. So at  
14 the mid-level exposure -- now I'm referring to Glass,  
15 2014 --

16          **Q.           Yes, sir.**

17          A.           -- it's at levels of greater than  
18 2.933 ppm -- I'm sorry -- at levels between .348 and  
19 2.93 ppm, the risk which was statistically  
20 significant was 5.04; but at the higher level, the  
21 risk drops and is no longer statistically  
22 significant, and the trend test was not  
23 significant -- was not significant.

24          **Q.           5.04 is a solid statistical relative risk**  
25 **to establish a connection, correct?**

1 A. I guess I don't understand that question.

2 Q. Well, 2.0 would mean that there's a --  
3 well, 1.0 is a statistical -- well, strike that.

4 Let me ask this. You would agree that  
5 there are studies where the relative risk of Benzene  
6 and CML being associated are greater than 2.0?

7 MS. FORGEY: Objection. Form.

8 A. So I just gave you the two studies,  
9 correct?

10 Q. Okay. And you, in fact, yourself believe  
11 that CML can be caused by Benzene exposure, correct?

12 MR. COLÓN: Objection as to form.

13 A. Say that again.

14 Q. You yourself believe that Benzene can  
15 cause CML, do you not?

16 A. No. I don't believe that.

17 Q. You've never believed that, right?

18 A. No.

19 Q. Okay. Well, you know, I didn't ask that  
20 very well. That was like a double negative.

21 A. Yeah.

22 Q. Have you ever believed that Benzene causes  
23 CML?

24 A. Not that I can recall.

25 Q. Doctor, in order to determine what causes

1 or what -- well, strike that. Let me think this  
2 through.

3 You obviously are aware of the Bradford  
4 Hill criteria for determining causation, correct?

5 A. Correct.

6 Q. Before you would make a statement  
7 regarding a particular drug or chemical or solvent  
8 being the cause of a particular leukemia, you  
9 yourself would go through that exercise of the  
10 Bradford Hill, correct?

11 A. So, Mr. Robb, maybe you haven't read my  
12 report, but there's a pretty extensive analysis of  
13 this in there. So the answer is I did it for this  
14 case, and I would do that for any other questions  
15 around general causation.

16 Q. That's why I'm asking it. So if anybody  
17 ever asked you in the past about whether or not you  
18 felt that CML was caused by Benzene exposure, you  
19 would have thought that through under the Bradford  
20 Hill criteria and make that determination; is that  
21 fair?

22 MS. FORGEY: Objection. Form.

23 A. I -- yeah. Sure. That would be fair.  
24 Assuming that it was in the right context and I had a  
25 chance to think about the Bradford Hill criteria,

1 et cetera.

2 Q. Well, I mean, have you told people in the  
3 past that you believe CML was caused by Benzene  
4 exposure?

5 A. Not that I can recall.

6 Q. When you give depositions like you do  
7 today, you take an oath to tell the truth, correct?

8 A. Correct.

9 Q. And can we rely upon what you testify to  
10 in depositions as being the truth and what you truly  
11 believe?

12 A. At the time in the context, sure.

13 Q. Okay. Well, you would agree that -- this  
14 isn't -- obviously, you've been deposed a number of  
15 times on the issues of Benzene and exposures and  
16 certain leukemias and cancers; is that also fair?

17 A. Yes.

18 Q. How many times have you testified on  
19 behalf of Safety-Kleen, either in deposition or  
20 trials or at hearings?

21 A. I don't know the exact number. I would  
22 say less than 10, maybe five.

23 Q. Okay. And how much have you been paid so  
24 far to serve as Safety-Kleen's expert in this  
25 particular case?

1 A. So I have to apologize because I know I  
2 was supposed to bring my invoices with me today, and  
3 I forget, but maybe, Heather, do you have them?

4 MS. FORGEY: I believe I do, and I believe  
5 there are two of them.

6 A. Perfect.

7 **Q. And I don't mind you telling me, Heather,**  
8 **what the amounts are or you can hand them to the**  
9 **Doctor and he can read them to me since he's under**  
10 **oath.**

11 MS. FORGEY: I'm going to have to dig them  
12 out.

13 BY MR. ROBB:

14 **Q. While she's digging those out, Doctor, how**  
15 **much time have you spent, would you estimate -- I'm**  
16 **not going to hold you -- because I know it's -- how**  
17 **much time have you spent so far on this particular**  
18 **matter?**

19 A. So when she gets the invoices, I'll tell  
20 you what I did previously, but this week, I've  
21 probably put in maybe 20 hours, but I'm kind of  
22 guessing.

23 **Q. And, what, the 20 hours this week, what**  
24 **did you spend doing 20 hours on this week?**

25 A. Reviewing the file, reviewing my report,

1 reviewing the literature.

2 **Q. Okay. You would agree with me -- while**  
3 **she's pulling that out -- that there are institutions**  
4 **around the world that recognize that Benzene causes**  
5 **CML? You recognize that, don't you?**

6 **A.** Well, I guess I have to ask you which  
7 institutions?

8 **Q. Well, let me ask you this. You're at Ohio**  
9 **State, right?**

10 **A.** That's correct.

11 **Q. Okay. The premier medical facility in the**  
12 **State of Ohio, would you agree, is the Cleveland**  
13 **Clinic?**

14 **A.** Seriously, you didn't just ask that, did  
15 you?

16 Which metric are you talking about?

17 **Q. Are you saying that the Cleveland Clinic**  
18 **is not considered to be a leading institution of**  
19 **medicine in the world?**

20 **A.** No, I didn't say that. That wasn't your  
21 question.

22 **Q. Well, let me reask it then.**

23 **Would you agree that the Cleveland Clinic**  
24 **is recognized as a leading medical institution**  
25 **throughout the world?**

1 A. Yes, I would.

2 Q. Okay. And in front of you -- or the court  
3 reporter should have a number of exhibits -- and the  
4 first exhibit is information from the Cleveland  
5 Clinic regarding CML.

6 A. Okay.

7 Q. All right. And let's turn to page 2 of  
8 that Exhibit 1 and "What causes leukemia?" Do you  
9 see that?

10 A. I do.

11 Q. All right. And it says, "For example" --  
12 this is in the second paragraph -- "very high doses  
13 of radiation."

14 We don't have that, right, in this case,  
15 you would agree with me on that? Mr. Campos wasn't  
16 exposed to high doses of radiation; is that fair?

17 A. Correct.

18 Q. Okay. "Exposure to the chemical Benzene."  
19 We do have that in this particular case, correct?  
20 He's been exposed to Benzene, you don't dispute that?

21 A. Well, you know, that's a whole other  
22 discussion, but I'm not going to just admit the  
23 question the way you just asked it. No.

24 Q. Doctor, are you saying that he was not  
25 exposed to any level of Benzene whatsoever while

1 **working with this product?**

2 A. I don't think you have any evidence to  
3 show that he was exposed to Benzene above background.

4 **Q. Okay. All right. But the question here,**  
5 **Doctor, is he was exposed to Benzene, correct, by**  
6 **working with this product?**

7 MS. FORGEY: Objection. Form.

8 A. There were trivial levels of Benzene in  
9 Safety-Kleen of which goes away --

10 **Q. Doctor --**

11 A. I'm answering the question for you --  
12 which goes away as it's being used.

13 I haven't seen any evidence, direct  
14 evidence, of Mr. Campos actually getting exposed to  
15 Benzene in the workplace. Just because it's in the  
16 mineral spirits doesn't mean it got into his body.

17 **Q. How does -- Benzene gets into the body by**  
18 **a number of ways, correct?**

19 A. That's right.

20 **Q. You can absorb it through your skin,**  
21 **right?**

22 A. With difficulty. It's a very slowly  
23 absorbed chemical through the skin.

24 **Q. Doctor, just please. Benzene can be**  
25 **absorbed through the skin, correct?**



1 A. Very slowly because it's a poorly absorbed  
2 compound through the skin.

3 Q. And you read the declaration and the  
4 deposition of my client where he specifically stated  
5 that he had Benzene -- or I'm sorry -- the  
6 Safety-Kleen solvent splashed his skin, and, in fact,  
7 at times he even washed his hands with it, correct?

8 A. That's correct.

9 Q. All right. So there's one avenue for  
10 Benzene to get into his body, would you agree with  
11 that?

12 A. Not necessarily.

13 Q. Doctor, within a reasonable degree of  
14 medical certainty, if you wash your hands with a  
15 chemical that contains Benzene, you're going to  
16 expose your skin to that particular product, would  
17 you agree with that simple premise?

18 MS. FORGEY: Objection. Form.

19 A. You'll expose the skin, but please don't  
20 confuse that with dose and internal absorption.

21 Q. All right. The other way of Benzene  
22 getting into your body is inhalation, correct?

23 A. Correct.

24 Q. And there's no question in your mind that  
25 my client worked in an area where he would have been

1 **subjected to fumes from this product, correct?**

2 MS. FORGEY: Objection. Form.

3 A. I'll accept that.

4 **Q. Okay. All right. You will concede, will**  
5 **you not, that Safety-Kleen 105 does contain elements**  
6 **of Benzene?**

7 A. It will contain some molecules of Benzene  
8 at trivial levels that are unimportant to risk of  
9 disease.

10 **Q. Well, again, Doctor, you don't know of any**  
11 **studies that have been done on Safety-Kleen's**  
12 **solvent -- Virgin Solvent 105 that gives you a number**  
13 **as to how much Benzene is in that product, correct?**

14 MS. FORGEY: Objection. Form.

15 A. Wait. I think I have seen documents of  
16 testing of Safety-Kleen 105.

17 **Q. I'm talking about Safety-Kleen Virgin**  
18 **Solvent 105 used in the same type of machines that my**  
19 **client was using at Makita and his other workplaces,**  
20 **have you seen one study that mirrors any of that?**

21 MS. FORGEY: Objection. Form.

22 A. I'm sorry. Are you asking me about  
23 Safety-Kleen that specifically went to your client's  
24 workplace?

25 **Q. Yes, sir.**

1 A. So, no, I haven't seen anything that went  
2 specifically to your client's workplace because it  
3 went to your client's workplace, so I'm not sure how  
4 it would have been tested.

5 **Q. Have you seen any test results of**  
6 **Safety-Kleen Virgin Solvent 105 --**

7 A. Yes.

8 **Q. -- from any source?**

9 A. Yes.

10 **Q. Where?**

11 A. So Safety-Kleen has done studies in the  
12 '90s where they were testing mineral spirits from a  
13 number of suppliers and there's data --

14 **Q. Tell me what -- I'm sorry, what study is**  
15 **that, Doctor?**

16 MS. FORGEY: Objection. Form.

17 A. Well, I have to pull the documents. They  
18 were documents that were disclosed to you, and  
19 they've got Bates. It will take me a few minutes for  
20 me to identify them if you want me to do that.

21 **Q. Well, Doctor, I want you to assume that**  
22 **the testimony we had yesterday from Mr. Breece was**  
23 **that all the test results, the empirical data, was**  
24 **tossed into a dumpster. Do you do that when you**  
25 **perform scientific testing?**

1 MR. COLÓN: Objection.

2 MS. FORGEY: Objection. Form. This is  
3 beyond the scope, Mr. Robb, and you're wasting  
4 everyone's time.

5 MR. ROBB: Well, I'm sorry, Heather, that  
6 you feel that way. But I think when test results are  
7 being testified as being valid, and they're being  
8 thrown into dumpsters, a jury should be allowed to  
9 hear that, as should the judge.

10 BY MR. ROBB:

11 **Q. So let me go back and reask the question.**  
12 **Are you aware that the test results and all the**  
13 **empirical data that made up those test results were**  
14 **thrown in a dumpster by Safety-Kleen?**

15 MR. COLÓN: Objection as to form. Lack of  
16 foundation.

17 MS. FORGEY: Same.

18 A. You really need to give me some  
19 clarification because, first of all, obviously, I  
20 don't have the benefit of the testimony or the  
21 context or how long they held onto those records and  
22 then decided to dispose of them because even we in  
23 the federal government after seven years will dispose  
24 of our research records.

25 **Q. Well, Doctor, my question to you is do you**

1 **have any empirical data that supports your contention**  
2 **that Safety-Kleen's Virgin Solvent 105 had only trace**  
3 **levels of Benzene in it?**

4 A. I guess I don't understand what you mean  
5 by empirical data. I have the reports that have been  
6 disclosed to you.

7 **Q. You don't have actual peer-reviewed,**  
8 **independent laboratory tests that confirm that,**  
9 **correct?**

10 MS. FORGEY: Objection. Form.

11 A. So there is reports from things like the  
12 American Conference for Governmental Industrial  
13 Hygienists that give us levels of Benzene in mineral  
14 spirits, published papers that give that. Whether or  
15 not they're the actual suppliers to Safety-Kleen, all  
16 I have is the Safety-Kleen data, which is consistent  
17 with what's published.

18 **Q. You would agree that those studies you**  
19 **just talked about do not specifically address**  
20 **Safety-Kleen Virgin Solvent 105, correct?**

21 MS. FORGEY: Objection. Form.

22 A. No. That's not what I said. I said the  
23 reports that I have seen are for Safety-Kleen 105  
24 Virgin that in the '90s Safety-Kleen was testing.

25 **Q. Well, those were Safety-Kleen's tests,**

1 **right?**

2 MS. FORGEY: Objection. Form.

3 A. I don't remember whether they contracted  
4 it out or they did it themselves.

5 **Q. Well, Doctor, isn't that kind of like the**  
6 **fox watching the henhouse?**

7 MR. COLÓN: Objection as to form.

8 MS. FORGEY: Objection. Form.

9 A. I just -- you know, I can't answer that.  
10 That's kind of a silly question. Let me finish my  
11 answer, please. Thank you.

12 So to be very clear, it's a company's  
13 responsibility, and I'm not an expert on corporate  
14 responsibility, but all the time, companies do their  
15 testing to make sure that they know what they're  
16 dealing with. That's a very accepted and common  
17 practice. Who else is going to be doing it? Who  
18 else should pay for it?

19 **Q. Doctor, aren't there independent labs that**  
20 **you send stuff out to to evaluate for you?**

21 A. I don't even know what you're talking  
22 about, so you have to be more specific than that.

23 **Q. Doctor, do you use independent labs to**  
24 **confirm test results that you may have conducted as**  
25 **part of research that you've done?**

1 A. Again, you know, I collaborate with other  
2 laboratories, sometimes we split samples, but, again,  
3 I'm not sure what you're talking about. You have to  
4 be more specific.

5 **Q. You don't understand that it would be**  
6 **better for an independent laboratory to do an**  
7 **evaluation of a company's product as opposed to the**  
8 **company itself? You don't see that -- the inherent**  
9 **conflict there?**

10 MS. FORGEY: Objection. Form. We're  
11 getting way beyond the scope, Mr. Robb.

12 MR. ROBB: Just object to the form,  
13 please.

14 A. So not necessarily. Suppose the company  
15 has the best lab in the world and everyone else  
16 doesn't do it nearly as well? I think you should go  
17 ask the cigarette companies those questions.

18 **Q. Doctor, you yourself have never done a**  
19 **study on Benzene exposure in occupational workers**  
20 **such as the type of work that Mr. Campos did, you**  
21 **would concede that, correct?**

22 MR. COLÓN: Objection. Vague.

23 A. Correct.

24 **Q. Okay. You have never been published at**  
25 **all in the area of Benzene exposure and workers that**

1 **work with Safety-Kleen 105, correct?**

2 A. That's correct.

3 **Q. All right. Now, are you using -- when I**  
4 **say Safety-Kleen 105, are you including in your**  
5 **analysis both Virgin Solvent and the Recycled**  
6 **Solvent?**

7 A. I'm not sure what you're asking. Which  
8 analysis are you talking about? Are you talking  
9 about answering the questions here or in my report or  
10 have I ever dealt with --

11 **Q. No.**

12 A. -- Safety-Kleen 105 Recycled Solvent?

13 **Q. Well, let's start with in this particular**  
14 **case, when you talk about Safety-Kleen 105, are you**  
15 **referring to both the components of it, the Recycled**  
16 **and the Virgin Solvent?**

17 A. As I said in my report, my understanding  
18 is that Mr. Campos never had the opportunity to work  
19 with Recycled Solvent because it wasn't available in  
20 Puerto Rico, so in that case, I'm only talking about  
21 virgin mineral spirits.

22 However, if he did work with Recycled  
23 Solvent, it wouldn't change my opinions in this case.

24 **Q. Okay. Can you tell me why Recycled Virgin**  
25 **Solvent is banned for sale anywhere in the United**



1 **States but Puerto Rico?**

2 MS. FORGEY: Objection. Form.

3 A. I have no idea what you're talking about.

4 **Q. Well, I want you to assume, Doctor, that**  
5 **Safety-Kleen 105 Recycled Solvent is banned for sale**  
6 **anywhere in the United States, and Puerto Rico is the**  
7 **only place it can be sold. Assuming that to be true,**  
8 **does that affect your opinion that this product is**  
9 **somehow safe?**

10 MR. COLÓN: Objection as to form.

11 MS. FORGEY: Join.

12 A. First of all, I don't think your  
13 hypothetical is correct. Secondly, I would have to  
14 know the reasons why it's banned because, for  
15 example, maybe it's too explosive or it's too  
16 hazardous to transport because of environmental  
17 contamination or some other reason. It may have  
18 nothing to do with safety to humans in terms of  
19 disease risk.

20 **Q. Well, to get it to Puerto Rico would**  
21 **involve a lot more transportation than bringing it**  
22 **from state to state, don't you think?**

23 MS. FORGEY: Objection. Form.

24 MR. COLÓN: Objection.

25 A. I wonder whether you're getting out of my

1 area of expertise, but I'm pretty sure that that's  
2 correct.

3 **Q. All right. Doctor, you say you don't know**  
4 **anything about it. Did you read any of the labels**  
5 **affixed to either of these products?**

6 MR. COLÓN: Objection as to form. Vague.

7 A. I have seen labels as well as MSDS's.

8 **Q. Okay. So then you've seen the label for**  
9 **the Recycled Safety-Kleen 105 that says, "This**  
10 **product" -- and it's at the top of the page of the**  
11 **label in bold print, "This product is only for sale**  
12 **and use in Puerto Rico. Use of this solvent anywhere**  
13 **else is strictly prohibited." Do you remember**  
14 **reading that?**

15 MS. FORGEY: Objection. Form. Outside  
16 the scope.

17 A. I don't remember that either way.

18 **Q. Okay. You would agree that Recycled S-K**  
19 **105 would have less Benzene in it than the Virgin**  
20 **Solvent?**

21 MS. FORGEY: Objection. Form. He's  
22 already testified that whether or not it was  
23 Virgin --

24 MR. ROBB: Let's hang on. Stop right  
25 there. Object to the form. I don't want you

1 coaching the witness.

2 MS. FORGEY: Mr. Robb, you have been going  
3 on and on and on, and I have been giving you a lot of  
4 leeway, but he has already said his opinion is the  
5 same no matter what kind of solvent it was, Recycled  
6 or Virgin, so we need to move on.

7 MR. ROBB: Ma'am, please let me do my  
8 cross-examination. I didn't interrupt any of your  
9 questions of my doctors when -- I made the  
10 appropriate objections to form, and I'm asking for  
11 the same courtesy be done here.

12 MS. FORGEY: Well, that's disputable, but  
13 you can have a little more leeway. But I really need  
14 to shut this down if you're going to continue asking  
15 him questions that are outside the scope of his  
16 designation.

17 MR. ROBB: Well, guess what? He said he's  
18 an expert in exposure, hematology, risk assessment.  
19 He's the one who said he's an expert in all these  
20 areas.

21 MR. COLÓN: He didn't say risk assessment.

22 MR. ROBB: Well, whatever.

23 BY MR. ROBB:

24 **Q. In any event, Doctor --**

25 MS. FORGEY: There's an issue with the

1 term exposure I think is where we're getting afield  
2 here.

3 MR. ROBB: Trust me, I know what I'm  
4 doing. Okay? Please let me continue with my  
5 questioning of the Doctor without any interruptions  
6 other than objection to form, please. I'm asking you  
7 as a professional.

8 BY MR. ROBB:

9 **Q. Doctor, would you agree that Recycled**  
10 **Solvent would have less Benzene in it than the Virgin**  
11 **Solvent?**

12 MS. FORGEY: Objection. Form.

13 A. You have to give me at what point in time?

14 **Q. Doctor, Recycled -- Virgin -- I'm sorry --**  
15 **Recycled S-K 105 is a product that has been used and**  
16 **then recycled. So you would agree that at that**  
17 **point, because it's been in circulation longer than**  
18 **the Virgin Solvent, that the Benzene levels would**  
19 **have dissipated more than in the Virgin Solvent?**

20 A. So that's not necessarily true because --

21 MR. COLÓN: Objection as to form. Lack of  
22 foundation.

23 A. -- the users of Safety-Kleen who's using  
24 the Recycled Solvent, because of their use, have the  
25 potential of adding things like gasoline and other

1 things that contain Benzene, so the Benzene levels  
2 actually in Recycled Solvent can be higher. It just  
3 depends on whether you're talking about  
4 post-processing, pre-processing, at the end of the  
5 use of four weeks or six weeks, or at the beginning.  
6 So you really have to start clarifying it. And I  
7 will tell you that if you start talking about those  
8 points in time, it gets kind of murky, and I haven't  
9 prepared for those questions here in this case  
10 because Mr. Campos didn't use Recycled Solvent.

11 **Q. Well, but my question to you, Doctor, is**  
12 **Virgin Solvent, when you first open that up, the**  
13 **Benzene levels in that particular product are going**  
14 **to be greater than in a recycled product --**

15 MS. FORGEY: Objection. Form.

16 BY MR. ROBB:

17 **Q. -- do you agree with that?**

18 MR. COLÓN: Same objection.

19 A. That's not necessarily true.

20 **Q. Doctor, within reasonable degree of**  
21 **medical certainty, a Virgin Solvent is going to have**  
22 **more levels of Benzene in it than a recycled product,**  
23 **would you agree with that?**

24 MS. FORGEY: Objection. Form.

25 MR. COLÓN: Same objection.

1 A. That's not correct. That's the question  
2 you just asked me.

3 **Q. Can you explain to me then why Dr. Breece,**  
4 **who testified yesterday, agreed with that very**  
5 **statement, and he works at Safety-Kleen -- or worked**  
6 **at Safety-Kleen?**

7 MS. FORGEY: Objection. Form. Asked and  
8 answered. Beyond the scope of the designation.

9 BY MR. ROBB:

10 **Q. Can you explain to me why Dr. Breece**  
11 **testified, and every other expert that Safety-Kleen**  
12 **has in this particular case are all in agreement,**  
13 **that the longer the chemical is in use, the Benzene**  
14 **breaks down and there's less exposure to the worker?**

15 MS. FORGEY: Objection. Form.

16 A. So first of all, you just totally changed  
17 the question. So secondly, if you're asking me  
18 whether or not Benzene evaporates faster than mineral  
19 spirits, not breaks down, the answer is yes. But the  
20 Recycled Solvent also has the opportunity of the end  
21 user to add things to it while they're cleaning their  
22 parts. So some recycled solvents, in fact, can have  
23 additional Benzene added to it. So that's how I  
24 would explain it to you.

25 **Q. Do you have one study that supports what**

1 **you just said?**

2 A. Sure.

3 MS. FORGEY: Objection. Form.

4 BY MR. ROBB:

5 **Q. Tell me -- name the study and the**  
6 **documents that support that opinion that Recycled**  
7 **Solvent is going to have more Benzene content in it**  
8 **than Virgin Solvent.**

9 MR. COLÓN: Objection as to form.

10 A. They have been in documents sent to me by  
11 Safety-Kleen earlier, again, I didn't prepare for  
12 this deposition, since Mr. Campos did not use  
13 Recycled Solvent, so they exist, but I'm not going to  
14 be able to name them for you from memory.

15 **Q. Well, Doctor, you have your file there in**  
16 **front of you.**

17 A. I have my Campos file in front of me.  
18 Those documents are not in here.

19 MS. FORGEY: Mr. Robb, we need to move on  
20 to issues that are within his designation.

21 MR. ROBB: Listen, counselor, I sat  
22 through four-and-a-half hours of depositions on two  
23 separate days. Please don't tell me that I need to  
24 move on. I'm 40 minutes into this deposition. Okay?

25 MS. FORGEY: You're asking him questions

1 outside the scope of his designation.

2 BY MR. ROBB:

3 **Q. Doctor, you're not going to be offering**  
4 **any opinions then on Benzene levels in Recycled**  
5 **Solvent versus Virgin Solvent then; is that correct,**  
6 **based on what counsel just said?**

7 A. What I will tell the jury is that the data  
8 that I have seen about -- I'm sorry. Say that again.  
9 Recycled versus Virgin? I don't really anticipate  
10 that in this case.

11 **Q. Okay. My question to you, because**  
12 **counselor says you're not going to be offering**  
13 **opinions -- well, let me ask you this, Heather, are**  
14 **you going to stipulate that he's not going to testify**  
15 **as to the Benzene levels in Recycled versus Virgin**  
16 **Solvent? If you tell me that he's not going to**  
17 **testify about that, I will move on.**

18 MS. FORGEY: He is going to testify about  
19 everything covered in his designation.

20 BY MR. ROBB:

21 **Q. Well, then, Doctor, where in your report**  
22 **do you talk about Benzene levels and Recycled Solvent**  
23 **versus Virgin S-K 105?**

24 A. So I don't make a specific comparison. I  
25 don't really think the question is relevant, so I



1 wouldn't do that analysis. On page 25 -- I'm still  
2 talking, please.

3 **Q. I apologize, Doctor. It's difficult when**  
4 **we do it this way, so I apologize for interrupting**  
5 **you.**

6 A. Okay. So on page 25 under the paragraph  
7 of "Mineral spirits," the last sentence says, "The  
8 Safety-Kleen Virgin -- 105 Virgin and Recycled  
9 Solvents have been studied, and the Benzene levels  
10 are trivial, well below levels of federal reporting  
11 requirements on MSDS's."

12 **Q. Okay. Did you read -- I notice in your**  
13 **references -- do you have Dr. Kopstein's analysis of**  
14 **Benzene levels in these type of products?**

15 A. Well, I'm aware of what he's assuming.  
16 It's not his analysis.

17 **Q. My question is do you have his paper cited**  
18 **anywhere in your list of references?**

19 A. His paper? Can you be more specific?

20 **Q. Yes. His peer-reviewed publications on**  
21 **these issues that we're talking about, do you have**  
22 **those?**

23 A. I've seen them. I have not cited them in  
24 my report.

25 **Q. So did you leave them out of your**

1 **references?**

2 A. Well, I didn't include them in my  
3 references. I don't think I intentionally left them  
4 out if that's what you're implying.

5 MS. FORGEY: Mr. Robb, are you assuming  
6 that he's going to do some independent quantification  
7 of exposure, some dose assessment, because that's not  
8 what he's going to do?

9 MR. ROBB: I'm not -- I know what I'm  
10 doing here, please. Okay?

11 MS. FORGEY: I'm just trying to  
12 short-circuit it. You asked me earlier about what  
13 he's going to testify about, and if you're asking him  
14 if he's going to testify about the Benzene content of  
15 products of Safety-Kleen's solvent at any given time,  
16 he's not.

17 He's relying on other people, and he's  
18 relying on his expertise and other literature in the  
19 field about the Benzene content historically of  
20 mineral spirits. So if that short-circuits your  
21 questions, then, please, let it short-circuit them.

22 MR. ROBB: Say what you just said,  
23 Heather, in one sentence, that Dr. Shields is not  
24 going to be offering any opinions regarding the  
25 Benzene content of Virgin Solvent 105 or Recycled

1 Solvent 105. If you say that on the record --

2 MS. FORGEY: That's not the case,  
3 Mr. Robb.

4 MR. ROBB: Then just be quiet, and I'll  
5 continue with my questions.

6 THE WITNESS: Mr. Robb, maybe you should  
7 ask me what is it that I'm going to say about  
8 exposure, that might help you a lot?

9 BY MR. ROBB:

10 Q. Doctor, again, you know, I know you've  
11 been down this road before, and you're here on behalf  
12 of Safety-Kleen, but I'm here on behalf of my client,  
13 and I'll ask the questions I think I need answers to.

14 MS. FORGEY: Object to the sidebar.

15 BY MR. ROBB:

16 Q. Well, Doctor, go back to the Cleveland  
17 Clinic exhibit that we were talking about. All  
18 right. We established my client hasn't been exposed  
19 to radiation. We haven't established that he's been  
20 exposed to Benzene. The next thing we talk about is  
21 exposure to certain chemotherapy drugs. We know that  
22 that's not the case with my client, correct? And he  
23 hasn't been exposed to chemotherapy, you would agree  
24 with that, right, Doctor?

25 A. That's correct.

1 Q. All right. And the paragraph goes on and  
2 says, "That may increase the risk of developing AML,  
3 ALL, or CML," correct?

4 A. I'm just trying to find where you're  
5 reading.

6 Q. Okay. I'm on page 2, "What causes  
7 leukemia," paragraph 2 under that says "Although the  
8 exact cause of the DNA mutation," you see that?

9 A. Yes.

10 Q. All right. And so let me just read this  
11 sentence. "For example, very high doses of  
12 radiation, exposure to the chemical Benzene, and  
13 exposure to certain chemotherapy drugs may increase  
14 the risk of developing AML, ALL, or CML." Did I read  
15 that correctly?

16 A. You did.

17 Q. Okay. Let's go to my next exhibit, which  
18 is Johns Hopkins.

19 A. Okay. Yep.

20 Q. And you'll agree that Johns Hopkins is a  
21 leading medical institution in this country?

22 A. I agree.

23 Q. All right. You're familiar with the Johns  
24 Hopkins Kimmel -- K-i-m-m-e-l for our court  
25 reporter -- Cancer Center?

1 A. Yep.

2 Q. All right. Very respected cancer center  
3 in the northeast?

4 A. Yep.

5 Q. All right. And you see the "Leukemia risk  
6 factors," correct?

7 A. That's right.

8 Q. All right. And it says under Benzene, it  
9 says, "Exposure to the chemical compound Benzene in  
10 the workplace can cause acute myeloid leukemia and  
11 chronic myeloid leukemia," right?

12 A. Are you asking me whether you read that  
13 correctly?

14 Q. That's what Johns Hopkins Kimmel Cancer  
15 Center recognizes as being a potential cause of the  
16 very leukemia that my client has, correct?

17 A. That's what they wrote.

18 Q. All right. Let's go to No. 3, Exhibit 3,  
19 the Children's Leukemia Research Association, do you  
20 know Dr. Peter Wiernik?

21 For our court reporter, that's  
22 W-i-e-r-n-i-k.

23 A. I don't.

24 Q. Okay. You haven't read any of his  
25 textbooks regarding neoplastic diseases and leukemia?

1 A. I don't read textbooks.

2 Q. You don't read -- do you teach?

3 MS. FORGEY: Objection. Form.

4 A. I sometimes teach.

5 Q. Okay. And you'll agree that on his --  
6 well, he's an oncologist like yourself, correct?

7 A. I don't know that.

8 Q. Okay. I want you to assume that he is an  
9 oncologist. All right. That's the type of work you  
10 do, right?

11 A. I am an oncologist by training. My  
12 expertise is in cancer causation.

13 Q. Okay. Most of your work, though, would  
14 you agree, has been in lung cancers and breast  
15 cancers; is that fair?

16 A. My primary research area, yes.

17 Q. Okay. Did you -- as far as breast cancer,  
18 did you ever make the connection between hormone  
19 therapy and women getting breast cancer?

20 A. I don't think I have in my research.

21 Q. Okay. But you do recognize that is an  
22 area of contention among physicians also that Prempro  
23 or hormone replacement drugs could cause breast  
24 cancer in women?

25 A. No. That's not contentious at all.

1 Q. You think it's an established fact?

2 A. Yeah. No one disputes that. Some people  
3 will still want to prescribe the drugs, but everyone  
4 understands that it increases the risk of breast  
5 cancer.

6 Q. Okay. On page 2 of this Children Leukemia  
7 Research Association document that you have in front  
8 of you, you see where it says "Chronic" -- I can't  
9 say the word -- "myelocytic leukemia (CML)." Do you  
10 see that, Doctor?

11 A. I see that section.

12 Q. All right. And it says, I'll read it,  
13 "The etiology of CML is unknown for most patients,  
14 although it is clear that exposure to ionizing  
15 radiation and some chemicals (Benzene) can cause the  
16 disease." Right?

17 A. That's what it says.

18 Q. All right. So there's a physician that  
19 feels that there's a link between Benzene and CML,  
20 and there's two hospitals, you agree, that feel that  
21 there's a connection. Let's go to page -- Exhibit 4.

22 A. I'm sorry. Was there a question?

23 MS. FORGEY: Object to the sidebar.

24 BY MR. ROBB:

25 Q. I'm done. Now I'm on to No. 4, and it's

1 titled "Cancer Council," and that's from New South  
2 Wales. I'll represent to you that's NSW, that's what  
3 that stands for.

4 A. So that's Australia?

5 Q. I believe it is.

6 A. So we're going to Australia.

7 Q. And you cited in your references that you  
8 have in your bibliography, or appendix to your  
9 report, you cite studies from all over the world,  
10 correct?

11 A. That's correct.

12 Q. All right. There's nothing wrong with  
13 studies from Australia or China or Africa or any  
14 other area of the country -- I'm sorry -- of the  
15 world, is there?

16 A. I guess you're asking me whether geography  
17 makes a study particularly unreliable? No. There  
18 are studies that are reliable and unreliable around  
19 the world.

20 Q. Okay. And the title of that -- of this  
21 paper, No. 4, is "Causes of Chronic Myeloid  
22 Leukemia." Again, that's the leukemia my client has,  
23 correct?

24 A. That's right.

25 Q. And it says, "Exposure to the chemical



1 Benzene or high doses of radiation may cause CML,"  
2 right? And it says, in fairness, "However, this  
3 doesn't explain the majority of cases," right?

4 A. You read that correctly.

5 Q. And then below it, you would agree, that  
6 it's been reviewed, the information that's on that  
7 particular website, has been reviewed by a bone  
8 marrow transplant physician, associate professors, a  
9 cancer council, you see all the names there, right, a  
10 hematologist?

11 A. Well, I'm not recognizing any name there  
12 or title of anyone that would have a particular  
13 expertise in leukemia causation.

14 Q. Well, sir, what is the -- CML, the -- is  
15 bone marrow transplant one way of treating CML?

16 A. That's right.

17 Q. All right. And one of the people that are  
18 cited here is a hematologist and a bone marrow  
19 transplant physician, correct?

20 A. Right, which would make it unlikely for  
21 that person to have an expertise in cancer causation.

22 Q. He's a hematologist. That would certainly  
23 give him an expertise in leukemia, would it not?

24 A. In leukemia, it would; not causation.

25 Q. All right. Well, regardless of the fact,

1 you do agree that on this particular page, there's  
2 somebody else, or a group of people, that disagree  
3 with your opinion that you've given here today that  
4 CML is caused by exposure to Benzene, correct?

5 A. Well, I'm not disputing what they wrote.  
6 I would like to know what their methodology is for  
7 coming to that conclusion before I would dispute it.

8 Q. Now, No. 5 is the "Montana Cancer Control  
9 Section," which is a division of the State of  
10 Montana. You're aware of the fact, aren't you, that  
11 various states have cancer councils or agencies,  
12 right?

13 A. That's right.

14 Q. Okay. In Ohio, do they have a state  
15 cancer registry or society of some sort?

16 A. Well, those are two very different things.  
17 So I guess you have to tell me what you mean by  
18 "sort."

19 Q. Okay. Well, I'll tell you what, let's  
20 just go to page 4 of this report. Tell me when you  
21 get there.

22 A. Okay.

23 Q. On the last paragraph where it starts with  
24 "There," do you see where I'm at?

25 A. Yep.

1 Q. -- "have been many studies."

2 A. Yep.

3 Q. I want you to go down, and I'm going to  
4 read this to you. It says, "The only well-documented  
5 association is increased risk of AML or CML with  
6 occupational exposure to Benzene." Do you see that?

7 A. I do.

8 Q. All right. And, again, the words used  
9 aren't "there may be; there's possibly." It says,  
10 "There's a well-documented association of an  
11 increased risk of AML or CML with occupational  
12 exposure to Benzene," correct?

13 A. So you actually -- so that's what they  
14 wrote, but you didn't finish because they cite in  
15 footnote 5, which is a website for ATSDR, and I would  
16 like to see what ATSDR says for their tox profiles.  
17 I don't think ATSDR recognizes Benzene as a  
18 well-documented exposure to CML. So they may have  
19 their footnote incorrect.

20 Q. Okay. All right. Let's go to No. 6, and  
21 the title of that is "Leukaemia." Have you ever  
22 gotten any funding from the Rockefeller Foundation?

23 A. No.

24 Q. You're aware of the Rockefeller  
25 Foundation?

1 A. Sure.

2 Q. All right. You recognize that they fund  
3 medical research and other -- well, you understand  
4 they fund medical research around the world?

5 A. Yes.

6 Q. Okay. Have you ever applied for funding  
7 with the Rockefeller Foundation?

8 A. No.

9 Q. Okay. Has The Ohio State University  
10 physicians ever applied for funding with the  
11 Rockefeller Foundation?

12 A. I have no idea. As far as I know, there's  
13 no one in our cancer center currently with their  
14 funding.

15 Q. Okay. But you have been in facilities  
16 where they funded those studies, I would assume,  
17 given your long, illustrious career and the places  
18 you have worked?

19 A. I don't know that. You're actually asking  
20 an interesting question because I don't know what  
21 they fund. They may not fund cancer research at all.

22 Q. Okay. Well, you agree that the title of  
23 this paper of No. 6 is called "Leukaemia," correct?

24 A. That's right.

25 Q. All right. And going over to the top

1 right-hand part of that page, it says "Benzene," do  
2 you see that?

3 A. Yes.

4 Q. And it says, "Exposure to Benzene in the  
5 workplace can cause acute myeloid leukaemia, and it  
6 may also cause chronic myeloid leukaemia, or acute  
7 lymphatic leukaemia," do you see that?

8 A. It's -- yes. It's "lymphocytic  
9 leukaemia." I do see that.

10 Q. I apologize. And if you turn to page 2,  
11 that is a publication of the Africa Cancer  
12 Foundation, right?

13 A. I guess so. It's not really clear.

14 Q. All right. Well, what do you mean it's  
15 not clear? Can you not look at the bottom on the far  
16 right side of the second page, it says "Funded by the  
17 Rockefeller Foundation, the Africa Cancer  
18 Foundation."

19 A. And I do see now that it says "A  
20 publication of the Africa Cancer Foundation."

21 Q. Okay. Now, No. 7, I'm going to apologize  
22 to you because I know it's going to hurt you because  
23 of the fact that you're an Ohio State guy, and this  
24 is a Michigan -- University of Michigan professor.

25 Let me ask you, do you know Dale Bixby?

1 A. I don't.

2 Q. All right. He's the Assistant Program  
3 Director of the Division of Hematology and Oncology  
4 at the Department of Internal Medicine at the  
5 University of Michigan. Right. All those areas  
6 would be dealing with cancer causation, you would  
7 agree, right?

8 A. No. I totally disagree. And by the way,  
9 he's a clinical assistant professor, but very few of  
10 the people in our division of hematology and oncology  
11 deal with causation. They're usually in cancer  
12 prevention and control programs.

13 Q. What's the specialist that -- well, you're  
14 an oncologist, right?

15 A. That's right.

16 Q. All right. And you say you're -- you do  
17 cancer causation determinations, correct?

18 A. That's correct.

19 Q. All right. And not only is he an  
20 assistant professor, he's also the assistant program  
21 director at the University of Michigan, correct?

22 A. That's what it says.

23 Q. All right. Now, let's go to -- it's  
24 probably page 9 because that's how I got my poor  
25 court reporter all mixed up earlier.

1 MR. COLÓN: Mike, excuse the interruption.  
2 I don't mean to interrupt your questions or your  
3 deposition, just a quick logistical matter.

4 MR. ROBB: Yes, sir.

5 MR. COLÓN: What time are you thinking of  
6 breaking for lunch? I need to schedule -- try to  
7 schedule other matters as well during whatever break,  
8 whenever you plan on breaking.

9 MR. ROBB: Francisco, I plan on being done  
10 probably in an hour.

11 MR. COLÓN: Okay. All right. Sorry.

12 MR. ROBB: If I feel like I'm going to go  
13 longer, I'll let you know, but I'm really not going  
14 to be all that much longer, I don't think.

15 MR. COLÓN: Thank you for that, Mike.

16 MR. ROBB: Sure.

17 THE WITNESS: So we've been going for an  
18 hour, so whenever you're ready, we can take a break.

19 MR. ROBB: That's fine. If you need a  
20 break, Doctor, I can get some more water. We can  
21 take a five-minute break. That's fine by me.

22 THE WITNESS: Okay. Great.

23 (Recess taken.)

24 BY MR. ROBB:

25 **Q. We were talking about the University of**

1 Michigan. Are you on page 9 of that? It says,  
2 "Epidemiology."

3 A. Yes.

4 Q. All right. And, again, it says, "Risk  
5 factors include exposure to certain organic solvents  
6 (Benzene)," right?

7 A. That's what it says.

8 Q. So there's another physician that  
9 disagrees with your opinion that CML and Benzene have  
10 no relation, correct?

11 A. That's what he wrote.

12 Q. And that's a direct contrast to what you  
13 believe, correct?

14 A. That's correct. I never heard of Dale  
15 Bixby. I don't know what expertise he has, but  
16 unlikely that he has expertise in cancer causation  
17 because I've never heard of him.

18 Q. Because you have expertise in cancer  
19 causation, what you tell us under oath then we can  
20 believe, correct?

21 A. Sure.

22 Q. Okay. Let's go to my next one, which  
23 is -- which number is that? I'm all messed up here.  
24 No. 7 -- I'm sorry. We just did 7.

25 No. 8, do you see that, it's titled,



1 again, "Leukaemia, February 22, 2011." This is a  
2 publication from the South Africa -- let me see  
3 here -- I've got it somewhere. It's from the South  
4 Africa's Health Information website. Do you have  
5 that?

6 A. So I have No. 8. I can't tell where it's  
7 from.

8 Q. Well, yeah. I just told you where it's on  
9 the back, but that's not here nor there. Go to  
10 page 2 of that.

11 A. Okay.

12 Q. See where it says, "Cause"?

13 A. Yeah.

14 Q. And skip down to bullet points, it talks  
15 about radiation, chemotherapy, some previous blood  
16 disorders, and then the next one is "Benzene exposure  
17 is associated with CML," correct?

18 A. That's what it says.

19 Q. All right. And this -- if you go to --  
20 and when it says something is associated with it,  
21 that means there is a link, correct?

22 MS. FORGEY: Objection. Form.

23 A. Well, you know, we're getting into jargon,  
24 right? So association statistically means that two  
25 things are related to each other. If it's

1 statistically significant, you make an assumption  
2 that it's not due to chance, although it still could  
3 be, but association, just to be really clear, is not  
4 the same thing as causation.

5 **Q. All right. But in this one, if you go to**  
6 **page -- if you look in the bottom right-hand corner**  
7 **of these pages as you flip through them, there's a**  
8 **number, you know, they're numbered 1 through 9, I**  
9 **believe.**

10 **A. Okay.**

11 **Q. Go to page 7. Do you see that?**

12 **A. I'm sorry. See what?**

13 **Q. Page 7 down here, it says 7/9. Can you**  
14 **get to that page?**

15 **A. 79?**

16 **Q. No. It says 7, and then there's a slash,**  
17 **9. It's page 7 of the 9 pages. That's what I'm**  
18 **trying to get you to.**

19 **A. I'm not seeing 1 of 9, 2 of 9, 7 of 9.**

20 **Q. Of this Leukaemia thing I just gave to**  
21 **you -- or, I'm sorry, do you have it in front of you?**

22 **A. Oh, I see. I see 7 of 9 looked to me like**  
23 **it was 79.**

24 **Q. That's fine. And this information was**  
25 **reviewed by a hematologist, correct?**

1 A. That's what it says. It says a --

2 **Q. Hematologists are the type of physicians**  
3 **who deal with leukemia day in and day out, right,**  
4 **that's their primary --**

5 A. That's correct. This is reviewed by a  
6 clinical hematologist, which, again, are usually not  
7 the people who are experts in causation.

8 **Q. Clinical hematologists are ones that are**  
9 **actually treating these people that have these**  
10 **horrible diseases, correct?**

11 MS. FORGEY: Objection. Form.

12 A. As have I. That's correct.

13 **Q. All right. Well, you would agree that CML**  
14 **is not -- is a horrible disease, correct?**

15 MS. FORGEY: Objection. Form.

16 A. Boy, that's a tough question because I  
17 have patients, you know, who are alive 10 years on  
18 Gleevec with absolutely normal lives, so I'm not sure  
19 that they would say that it's horrible.

20 **Q. They would say that it's good to have CML?**

21 A. Oh, that's -- please don't twist my words  
22 like that.

23 MS. FORGEY: Objection to form.

24 BY MR. ROBB:

25 **Q. Well, that's what you're saying, Doctor.**

1 You're trying to say that it's --

2 MR. COLÓN: Objection to form.

3 MR. ROBB: I'll rephrase. I'll move on.

4 BY MR. ROBB:

5 Q. Doctor, you have the next one is No. 9,  
6 University of California Davis Comprehensive Cancer  
7 Center.

8 A. I have that.

9 Q. You're familiar with that facility?

10 A. Yes.

11 Q. Okay. Another respected facility in the  
12 United States for people to go to get cancer care and  
13 leukemia care, correct?

14 A. That's correct.

15 Q. All right. Let's go to page 2 of 9 -- or  
16 29, as you like to call it. That's a joke.

17 A. Yeah. My eyesight is not as good as it  
18 used to be.

19 Q. Join the club. Are you with me?

20 A. Yeah.

21 Q. See "Risk factors," and you go down, and  
22 the third bullet point is, "Exposure to Benzene in  
23 the workplace can cause acute myeloid leukemia," and  
24 then the next paragraph is, "It may also cause  
25 chronic myeloid leukemia," correct, I read that

1 right?

2 A. You did.

3 Q. All right. So here's another leading  
4 medical institution that recognizes the connection  
5 between Benzene and CML, correct?

6 A. Well, so "may" is a pretty weak term. So  
7 that statement was neither correct nor incorrect.

8 Q. It doesn't say it's not related, does it,  
9 Doctor?

10 A. It does not say that it's not related.

11 Q. So anybody reading that can infer that  
12 there is some association between Benzene and CML  
13 according to the doctors at the University of  
14 California Davis, correct?

15 MR. COLÓN: Objection as to form.

16 MS. FORGEY: Objection. Form.

17 A. I think the word "may" means may, everyone  
18 understands that, which means maybe, maybe not.

19 Q. Okay. The next one is No. 10. It's from  
20 the Irish Cancer Society. Do you have that?

21 A. I do.

22 Q. All right. And, again, it's talking about  
23 CML, and it says, "Exposure to chemicals. Long-time  
24 exposure to the chemical Benzene can increase your  
25 risk," right?

1 A. That's what it says.

2 **Q. All right. Do you believe that any**  
3 **exposure to Benzene increases the risk of getting**  
4 **CML, or there's just no risk at all between Benzene**  
5 **and CML?**

6 A. Well, I think the studies pretty clearly  
7 show that at high risk -- I'm sorry -- at high levels  
8 of exposure does not increase the risk of CML. So if  
9 high risk -- sorry -- let me say that again.

10 So if high levels can't establish an  
11 increased risk through multiple studies, then it's  
12 reasonable to assume that lower exposures would not  
13 increase the risk of CML.

14 **Q. So your opinion today is that there's**  
15 **absolutely no exposure level to Benzene that would**  
16 **cause you to develop CML; is that fair?**

17 A. Well, what I'm saying is that there's no  
18 studies to support that statement. There's  
19 insufficient study to support that statement. As we  
20 talked about, there's one or two studies that  
21 provides statistically significant association at  
22 higher levels of exposure, although the vast majority  
23 of the studies, almost all of them, don't provide  
24 statistical associations.

25 **Q. Okay. Now, then, let's go to No. 11, and**

1 that's the Cancer Research of the United Kingdom or  
2 Great Britain. That's their cancer society. Okay.  
3 Do you have that?

4 A. I have that.

5 Q. All right. And that talks about CML, the  
6 risk and causes. Do you see that?

7 A. You're looking at the section -- yes.

8 Q. All right. And then you go to the second  
9 page, and there's a subheading for Benzene.

10 A. Yes.

11 Q. And it says, "Contact with a chemical  
12 called Benzene for some years may increase your CML  
13 risk." Do you see that?

14 A. That's what it says.

15 Q. Okay. Doesn't talk about the amount of  
16 the exposure but just simply working with the  
17 chemical may cause CML. Do you agree that's what it  
18 says?

19 MR. COLÓN: Objection as to form.

20 A. I'm sorry. I'm just looking at the  
21 document.

22 Q. That's fine.

23 A. Yeah. So right. I was just reading the  
24 paragraph here which says -- you know, which you read  
25 correctly -- some -- "For some years may increase CML

1 risk." But you actually didn't give us the last  
2 sentence in that same paragraph, which says, "But  
3 most people in U.K. wouldn't come in contact with  
4 enough Benzene for it to increase their risk at all."  
5 So that specifically speaks to the fact that they are  
6 referring to dose.

7 Q. Well, there they're talking about -- and  
8 if you want to be fair, read the paragraph before  
9 it -- they're talking about petro or gasoline fumes,  
10 correct?

11 A. That's right. That's in the middle.

12 Q. Yeah. Okay. And you would agree that  
13 Mr. Campos's exposure to Benzene is more than, say,  
14 you or I that sit in offices -- or, well, you  
15 probably move around a little more than I do, going  
16 in and out of hospitals.

17 But you would agree that Mr. Campos is  
18 exposed to Benzene -- or was exposed to Benzene on a  
19 more regular basis than normal working people that  
20 aren't involved in parts cleaning and things like  
21 that?

22 MS. FORGEY: Objection. Form.

23 A. So I haven't seen any evidence that  
24 Mr. Campos is exposed above background. There's a  
25 wide range of background in the population. It's



1 different for smokers and nonsmokers. So, you know,  
2 I wouldn't necessarily agree with that. It depends  
3 on the person and depends on where they live, and it  
4 depends on their lifestyle.

5 **Q. Well, did you read the report of**  
6 **Dr. Kopstein?**

7 A. Yes.

8 **Q. All right. So you are aware of the fact**  
9 **that he was exposed at a much higher level than**  
10 **background, according to Dr. Kopstein, you just don't**  
11 **agree with it?**

12 MR. COLÓN: Objection as to form.

13 A. Right. So I'm aware that Dr. Kopstein  
14 claims that, but that the overwhelming scientific  
15 literature disputes what Dr. Kopstein has to say.

16 **Q. Well, but Dr. Kopstein actually talked to**  
17 **my client about his exposure, right?**

18 A. If you represent that to me, I don't  
19 recall that either way, but talking to Mr. Campos  
20 will not tell you what level of exposure he actually  
21 has. All it could do is tell you what workplace  
22 activities Mr. Campos describes.

23 **Q. Well, the worker is going to be able to**  
24 **tell you approximately how long he's exposed to this**  
25 **particular chemical, right? That's a valid source of**

1 **information, is it not?**

2 MR. COLÓN: Objection as to form.

3 A. Sure. His testimony about how often he  
4 uses it, how he uses it, how long he uses it is  
5 testimony given under oath, so one would rely on  
6 that.

7 **Q. If a product causes a particular leukemia,**  
8 **do you believe that should be included on the label**  
9 **of that product?**

10 MS. FORGEY: Objection. Form.

11 BY MR. ROBB:

12 **Q. Let me reask that.**

13 **Do you believe that a company that**  
14 **manufacturers a chemical owes it to the people that**  
15 **are going to be exposed to that chemical to put on**  
16 **the warning label what diseases that chemical may**  
17 **produce in their body?**

18 MS. FORGEY: Objection. Form. Beyond the  
19 scope.

20 A. So if you have -- let's be specific --  
21 Benzene as a cause of AML, just because coffee or  
22 Safety-Kleen or strawberries have Benzene in it, I  
23 would think that I would like to see a label if  
24 there's a reasonable expectation that the level of  
25 Benzene in that product is going to increase your

1 risk. Just because it's there doesn't mean that it  
2 increases your risk. It's one of the areas where  
3 your experts have it entirely wrong.

4 **Q. Doctor, you're not trying to equate what**  
5 **my client was exposed to to eating strawberries, are**  
6 **you?**

7 A. Well, I don't see the evidence that your  
8 client was exposed to Benzene above background. So  
9 we get background sources from a lot of different  
10 places; for smokers, a lot of it is smoking; but  
11 filling up your gas tank, eating strawberries,  
12 drinking coffee. Benzene is pretty ubiquitous in our  
13 environment.

14 So by your question that you ask, we would  
15 basically have to have a label of every product sold  
16 on the market as being this may cause leukemia. And  
17 that's just absurd.

18 **Q. Now, my question to you, Doctor, is if**  
19 **you're selling a product such as Safety-Kleen 105,**  
20 **and you know that it causes CML, the worker should be**  
21 **told of that, don't you think?**

22 MS. FORGEY: Objection. Form.

23 A. Well, that's such a complicated question  
24 because, first of all, you're asking me to assume  
25 that Benzene causes CML. We've discussed that

1 extensively. You are asking me to assume that  
2 there's enough Benzene in Safety-Kleen 105 to cause  
3 CML. We've discussed that extensively.

4 So the answer is, no, when, in fact, for  
5 MSDS's and things like that, my understanding is that  
6 there's regulations about how much Benzene needs to  
7 be in a product before it gets labeled, and  
8 Safety-Kleen didn't meet that.

9 **Q. Doctor, you have a pattern, don't you,**  
10 **when you're hired by Safety-Kleen, or by any**  
11 **industry, to defend their practices, to basically**  
12 **belittle the other experts that the plaintiffs have**  
13 **retained in cases, that's a pattern --**

14 MS. FORGEY: Objection. Form.

15 MR. COLÓN: Objection as to form.

16 BY MR. ROBB:

17 **Q. -- right?**

18 A. Can you tell me what you mean by pattern?

19 **Q. Well --**

20 MR. COLÓN: Belittle.

21 BY MR. ROBB:

22 **Q. Did you not in West Virginia belittle the**  
23 **methods -- methodology that was used by the experts**  
24 **that the plaintiffs had retained in a case involving**  
25 **CSX Transportation?**

1 MR. COLÓN: Objection as to form.

2 BY MS. FORGEY:

3 Q. The case is Hall. Do you remember the  
4 case of Hall?

5 A. Hall?

6 Q. Yes. H-a-l-l.

7 A. No.

8 Q. All right. Do you recall any West  
9 Virginia Supreme Court opinion that said that the  
10 methods that you used to question the validity of the  
11 opinions of the plaintiff's expert in that case  
12 should not have been accepted by the trial court?

13 A. I have no recollection of this.

14 Q. Okay. Do you know an attorney by the name  
15 of Dean Hartley? Do you remember him deposing you?

16 A. I know Dean Hartley.

17 Q. Okay. And do you recall the case you had  
18 with Dean Hartley that went up to the West Virginia  
19 Supreme Court in regard --

20 A. I've had multiple cases with Dean Hartley.  
21 I have no idea about what you're talking.

22 Q. Well, you've been in West Virginia cases  
23 before, correct, regarding Benzene and other chemical  
24 exposures; is that fair?

25 A. I believe so.

1 Q. Okay. Are you aware of the fact that the  
2 West Virginia Supreme Court has found that CML is  
3 caused by exposure to Benzene?

4 A. I don't ever remember being in a case with  
5 CML, so if you're talking about something, it's  
6 probably something I'm not involved with.

7 MS. FORGEY: And I'll object to the form.

8 BY MR. ROBB:

9 Q. All right. But this is not the first time  
10 that you have criticized the experts on the other  
11 side and their methodologies, correct?

12 MS. FORGEY: Objection. Form.

13 A. If you're asking me if I call it like I  
14 see it, the answer is yes. That's what I should be  
15 doing.

16 Q. All right. You call it as you see it. So  
17 when you're under oath and you're asked a question,  
18 you tell the truth, and we can take that to the bank,  
19 correct?

20 A. I'm --

21 MR. COLÓN: Objection as to form.

22 A. I certainly do the best I can, and I'm  
23 certainly giving my testimony under oath.

24 Q. Okay. And when you give your testimony  
25 under oath that CML causes -- I mean, that Benzene

1 **causes CML, that's something we can rely upon,**  
2 **correct?**

3 MS. FORGEY: Objection. Form.

4 MR. COLÓN: Objection as to form.

5 MS. FORGEY: Misstates testimony.

6 A. I guess I have to see what you're talking  
7 about.

8 **Q. Doctor, I just want you to -- I want you**  
9 **to assume that you've testified that CML is caused by**  
10 **exposure to Benzene under oath. I can trust that**  
11 **opinion from you, can't I?**

12 MS. FORGEY: Objection. Form.

13 MR. COLÓN: Objection as to form. Lack of  
14 foundation. Confront him. Show him what you have.

15 MR. ROBB: I'm not going to tip my Daubert  
16 hand.

17 BY MR. ROBB:

18 **Q. Right, if you said it, I can count on it?**

19 A. Again, I have to see the context of what  
20 you're talking about.

21 **Q. All right. If you were asked the**  
22 **question, "Does Benzene cause CML?" And you said,**  
23 **"Yes," there's no question you answered that the way**  
24 **you believed it to be, correct?**

25 MS. FORGEY: Objection. Form.

1 MR. COLÓN: Is that an assumption or are  
2 you telling him that as -- are you asking him to  
3 assume that or is that a fact? Objection.

4 MR. ROBB: Object to the form, please,  
5 Francisco.

6 I'll move on. I have what I need, I  
7 think.

8 BY MR. ROBB:

9 **Q. Now, have you read Dr. Frank's deposition?**

10 **A.** I have.

11 **Q. All right. Do you want to apologize to**  
12 **Dr. Frank to the comments you made about him in your**  
13 **report?**

14 MS. FORGEY: Objection. Form.

15 Mr. Robb, if you're going to be  
16 unprofessional and rude --

17 MR. ROBB: I'm not being unprofessional.  
18 Your doctor said that Dr. Frank didn't know the first  
19 thing about CML or AML. I thought that was  
20 unprofessional.

21 BY MR. ROBB:

22 **Q. So I'm simply asking him, did you read**  
23 **Dr. Frank's deposition?**

24 **A.** I did.

25 **Q. It's clear he has an understanding of CML**



1 **versus AML, isn't it, Doctor?**

2 A. That's not so clear, although he said he  
3 did.

4 **Q. Well, where in his four hours of testimony**  
5 **did he ever present being confused between AML and**  
6 **CML?**

7 A. Well, because he confuses them on  
8 etiology.

9 **Q. Well, what do you mean that he says**  
10 **that -- when you say etiology, what do you mean he**  
11 **confuses it?**

12 A. Its causes. He makes the assumption that  
13 something that can cause AML must cause CML. He  
14 admitted that he has no papers to support his  
15 opinion, and so he extrapolates from AML to CML and  
16 fails to recognize, as my report says -- by the way,  
17 I didn't say he doesn't know the first thing about  
18 it. You totally mischaracterized my report. The  
19 sentence speaks for itself.

20 In my report, it says, "Dr. Frank  
21 apparently confuses CML with other forms of leukemia  
22 and apparently does not recognize the distinct  
23 features of the diseases and etiologies." And I'll  
24 stand by that. And his deposition didn't -- which I  
25 didn't have the benefit of when I read -- when I

1 wrote this report -- his deposition -- I still make  
2 the same statement.

3 **Q. Well, you saw that he had a number of**  
4 **reports with him that supported his opinion, did you**  
5 **not?**

6 MR. COLÓN: Objection as to form.

7 A. I actually went through all the papers  
8 that he brought in Exhibit 5, and of the 10 or 12  
9 things he cited, or maybe 15, only half of them were  
10 actually research studies. Those half that weren't  
11 research studies, most of them didn't support him.  
12 Of the research studies, only one-and-a-half of the  
13 eight or so supported his opinions. So let's peel  
14 back his opinions and see what he's really talking  
15 about.

16 **Q. Well, Bradford Hill doesn't require that**  
17 **there be -- that one study could be enough. It**  
18 **doesn't require a number of studies, does it?**

19 MR. COLÓN: Objection as to form.

20 A. I don't know what you mean by criteria,  
21 but Bradford Hill is pretty clear. You look at the  
22 available literature, and just because you have one  
23 that's positive doesn't mean that you can ignore  
24 everything else.

25 **Q. That's right.**

1 A. Consistency is a pretty understood  
2 principle by epidemiologists. And the consistency in  
3 this case is that at the levels of exposure of your  
4 client, or higher levels of exposure, the evidence is  
5 showing that it's not causing CML. We don't have  
6 statistically significant increased risks.

7 **Q. Well, now you're saying he had a high**  
8 **level of exposure, and before you were saying he had**  
9 **no exposure greater than background. So what is it?**

10 A. I didn't say that.

11 **Q. Well, didn't you say that his -- There's**  
12 **no evidence that his exposure was above background,**  
13 **wasn't that your exact testimony probably 15 minutes**  
14 **ago?**

15 A. That's correct.

16 **Q. All right. So now you're saying he has**  
17 **high exposure?**

18 A. No.

19 **Q. Did you rely upon those studies?**

20 A. No. What I'm saying is that studies of  
21 people with higher levels of exposure than him don't  
22 have the associations shown for CML. And if they  
23 don't have it, then Mr. Campos can't have it at  
24 background levels.

25 **Q. Okay. And your opinion that CML is not**

1 **caused by Benzene is an opinion you've held for years**  
2 **and years, right?**

3 MR. COLÓN: Objection as to form.

4 A. Well, based on the series of questions  
5 that you're saying, I guess there may be something  
6 that I'm not recalling right now.

7 **Q. Well, hang on, Doc. When did you -- are**  
8 **you forming new opinions about it now?**

9 A. No.

10 **Q. Okay. And you would never confuse -- you**  
11 **talked about Dr. Frank and the fact that he confuses**  
12 **his etiologies between the two, but being the highly**  
13 **qualified cancer researcher that you are, you would**  
14 **never fall into that trap, would you?**

15 MR. COLÓN: Objection as to form.

16 MS. FORGEY: Objection. Form.

17 A. It's so vague, I am not even sure how to  
18 answer that question.

19 **Q. Doctor, you would never confuse the**  
20 **etiologies of AML and CML, correct?**

21 MS. FORGEY: Objection. Form.

22 A. I would hope not in a report.

23 **Q. Well, in -- you know the difference**  
24 **between the two etiologies, correct?**

25 A. I know the difference between the two

1 diseases.

2 **Q. Well, didn't you say etiology is the**  
3 **causes?**

4 A. Correct.

5 **Q. All right. You do know the difference in**  
6 **the etiologies between AML and CML, correct?**

7 A. Correct.

8 **Q. And you've known that for a long period of**  
9 **time, haven't you?**

10 A. Sure. During my professional career is  
11 when I started thinking about these things.

12 **Q. And your professional career started when?**

13 A. Well, I would say probably late '80s.

14 **Q. Okay. So from the late '80s, you were**  
15 **familiar with the etiologies of particular leukemias**  
16 **as part of your training and your eventual, you know,**  
17 **continued experience in the workplace; is that fair?**

18 A. I don't recall when I started thinking  
19 more about leukemia as opposed to just sort of common  
20 hearsay.

21 **Q. Well, I thought you said you knew the**  
22 **difference between the etiologies starting back in**  
23 **the '80s.**

24 MR. COLÓN: No. That's not what he said,  
25 Mike.

1 MR. ROBB: Well, then, I'm trying to  
2 figure out when he started to determine what the  
3 etiologies were of leukemia.

4 MR. COLÓN: That's a different question.  
5 But that's not what he said, and that's not what you  
6 asked him.

7 MR. ROBB: Okay. That's why I'm asking  
8 it.

9 MS. FORGEY: And I'm objecting to the  
10 form.

11 BY MR. ROBB:

12 **Q. All right. When did you start considering**  
13 **the etiologies of CML and AML?**

14 A. I don't remember. Probably sometime in  
15 the '90s. Maybe earlier. I just don't remember.  
16 It's a long time ago.

17 **Q. Okay. That's fine. All right. So in the**  
18 **late '80s, early '90s -- I'm not going to hold you to**  
19 **an exact year -- that's when you started, you know,**  
20 **you considered the etiologies of both of those type**  
21 **of cancers, according to your testimony, right?**

22 A. I guess the problem that I'm having here  
23 is it's not like one day I said, Okay, I'm going to  
24 sit down and do an exhaustive analysis and, boom,  
25 I've had a deep understanding.

1 I mean, these things have grown over time  
2 as I have professionally developed and come across  
3 questions and issues during my professional career.  
4 So it's not like there's some specific date.

5 **Q. How long have you been involved in Benzene**  
6 **type litigation, at least since the '90s, correct?**

7 A. I would guess that's probably more in the  
8 2000s.

9 **Q. Okay. The early 2000s?**

10 A. Probably.

11 **Q. Okay. And I may have asked you this, and**  
12 **if I did, I apologize. How many times have you --**  
13 **well, let me ask you.**

14 **When did you first appear as an expert,**  
15 **either by writing a report, giving a deposition, or**  
16 **appearing in trial on behalf of Safety-Kleen?**

17 A. That would be just in the last few years.

18 **Q. Okay. And prior to -- obviously, CSX has**  
19 **hired you in the past on exposures of chemicals to**  
20 **railroad workers and things like that, correct?**

21 A. That's right.

22 **Q. And that would include Benzene, right?**

23 A. There was allegations of Benzene and  
24 diesel exhaust, maybe some solvents.

25 **Q. Okay. And those cases go back to the**

1 '90s?

2 A. Probably not. Probably still the 2000s.

3 Q. All right. We're talking early 2000?

4 A. I might have started around then.

5 Q. Okay. And in those particular cases,  
6 there were -- you were involved with cases of CML and  
7 AML back then too, correct?

8 A. I don't remember any CML cases.

9 Q. Okay. All right.

10 A. Maybe. Maybe. I mean, that's a long time  
11 ago.

12 Q. Okay. All right. Let me see what else I  
13 have here.

14 You did a lot of training at Georgetown  
15 and George Washington.

16 A. Well, I didn't train at Georgetown. I  
17 trained at George Washington and the National Cancer  
18 Institute and the Mount Sinai School of Medicine.

19 Q. All right. Did you know -- do you know  
20 Dr. Goldsmith, the expert that we have in this case  
21 that works at both George Washington University and  
22 Georgetown?

23 A. I don't. I don't think Dr. Goldsmith  
24 actually is employed by Georgetown. I think he has  
25 an adjunct faculty status.



1 Q. In other words, he teaches at that school,  
2 correct?

3 A. That's what he said. I didn't  
4 independently verify that.

5 Q. Okay. Those are two fine institutions,  
6 correct?

7 A. Sure.

8 Q. All right. And in your report, you take  
9 issue with him, correct?

10 A. That's correct.

11 MR. COLÓN: Objection as to form.

12 BY MR. ROBB:

13 Q. All right. Do you not take issue with his  
14 report?

15 A. No. I said that was correct.

16 Q. All right. And in this report that you  
17 prepared in this particular case, do you have a  
18 template you work off of?

19 A. Well, not particularly. I will cut and  
20 paste from earlier reports if I have something that's  
21 related.

22 Q. Well, in this particular case, you've cut  
23 and pasted a number of things, correct?

24 MS. FORGEY: Objection. Form.

25 You're getting into the privilege of draft

1 reports, Mr. Robb.

2 MR. ROBB: No. I'm not asking him what  
3 the lawyers did. I'm asking what he did.

4 MR. COLÓN: The privilege is the same.  
5 You can't get into his draft reports.

6 MS. FORGEY: Draft reports are privileged.  
7 And you took the position during your causation  
8 depositions that we could not get any communications,  
9 draft reports, or anything privileged by Rule 26. We  
10 take the same position.

11 BY MR. ROBB:

12 **Q. Doctor, in other reports that you have**  
13 **done, you have used this lung cancer analogy,**  
14 **correct?**

15 A. Correct.

16 **Q. So that's something that you cut and**  
17 **pasted from prior reports in other cases?**

18 MR. COLÓN: Objection. Mike, you're  
19 asking about the drafting of his report.

20 MR. ROBB: No. He said he cut and pasted  
21 it. I have his other reports. It's no mystery. But  
22 I'll move on.

23 BY MR. ROBB:

24 **Q. Did you actually type this report**  
25 **yourself?**

1 A. Yes.

2 Q. Okay. Going back to Dr. Goldsmith, he's  
3 an epidemiologist, right?

4 A. Right.

5 Q. He's an occupational and environmental  
6 epidemiologist. You're neither of those two things,  
7 correct?

8 MR. COLÓN: Objection.

9 A. I certainly do a lot of environmental  
10 epidemiology. I've published on occupational  
11 epidemiology, so I guess I would say that's not  
12 correct.

13 Q. All right. So let me go through all of  
14 your things you're an expert in then.

15 You are an occupational epidemiologist, in  
16 your opinion, correct?

17 A. I'm an epidemiologist that has done  
18 research in both occupational and environmental  
19 studies, correct.

20 Q. All right. You're an expert in oncology?

21 A. Yeah.

22 Q. You're an expert in hematology?

23 A. Yes.

24 Q. You're not board certified in hematology  
25 though, are you?

1 A. I was. I just let them lapse because I'm,  
2 obviously, a pretty busy guy and didn't bother to  
3 retake the test.

4 **Q. So the answer is, no, you're not board**  
5 **certified?**

6 A. Well, I think the term is board eligible.

7 **Q. Okay. As far as Dr. Goldsmith, what did**  
8 **he do wrong in his evaluation of this case?**

9 A. Boy, you got 20 minutes? Do you want me  
10 to go through all the issues?

11 **Q. Yeah. I want you to tell me why a jury**  
12 **should believe you over him.**

13 MR. COLÓN: That's a different question.

14 BY MR. ROBB:

15 **Q. Well, there's the question. Why should a**  
16 **jury believe you over Dr. Goldsmith?**

17 MS. FORGEY: Objection. Form.

18 A. Well, Dr. Goldsmith is an epidemiologist.  
19 I don't see his qualifications or research experience  
20 for understanding the causes of cancer generally,  
21 which would then apply to the causes of leukemia.

22 I've spent my life in a laboratory and  
23 actually conducting the epidemiology studies,  
24 Dr. Goldsmith hasn't.

25 And so the types of things I've done is

1 the experiments in people to look at what might cause  
2 cancer, what the cancer mechanisms are. I have an  
3 understanding of dose response relationship that I  
4 don't see from either of your experts, Dr. Frank or  
5 Dr. Goldsmith.

6 I understand the differences in risks and  
7 how they actually apply to people. I have looked at  
8 patients in the eye and actually explained to them  
9 what are the causes of cancer when they ask. I've  
10 done extensive occupational histories of probably  
11 thousands of patients.

12 And I think I could probably look at my CV  
13 and talk about even more, but I don't know that  
14 Dr. Goldsmith has ever been on an NIH study section  
15 panel that looks at grant reviews for people asking  
16 for money to study the causes of cancer. I actually  
17 don't see any publications, but maybe he's got one or  
18 two on his CV, but certainly nothing recently. And  
19 so I can go on from there, but I think that's a  
20 pretty good overview.

21 **Q. Well, he did work for the National**  
22 **Institutes of Health, correct?**

23 A. Which institute?

24 **Q. National Institutes of Health.**

25 A. So which institute?

1 Q. National Institute for Occupational Safety  
2 and Health. You have his report there, don't you?

3 A. I can open it up.

4 Q. He worked for the United States  
5 Environmental Protection Agency.

6 A. So that's not NIH. Again, you were asking  
7 me about qualifications, and he worked in NIOSH.  
8 First of all, NIOSH is not a National Institute of  
9 Health. It's part of the CDC.

10 Secondly --

11 Q. Well --

12 A. Let me finish. I'm trying to finish here.

13 Q. I want you to get to his report so we can  
14 go through this a little bit quicker. That's all I'm  
15 going to ask you to do, Doctor. I apologize for  
16 interrupting you, but if you can pull up his report,  
17 it will make my next questions easier and get us out  
18 of here quicker. That's all. Okay?

19 A. Okay. So we're finding it. Okay.

20 Q. Are you with me? All right. Let's go  
21 down, like, towards the bottom where he talks about  
22 his professional background. Okay?

23 A. Yeah.

24 Q. I have, "Teaching and research experience  
25 in the area of occupational and environmental health

1 cancer epidemiology," right?

2 A. Yeah.

3 Q. So he's in the laboratory. You said he  
4 wasn't, but that's --

5 A. Whoa. Whoa. Whoa. Say that again.

6 Q. He's doing research, right?

7 A. Yeah.

8 Q. That's what epidemiologists do, right?

9 A. Most epidemiologists don't work in  
10 laboratories.

11 Q. All right. They do research, though,  
12 right?

13 A. They do.

14 Q. All right. And you rely upon epidemiology  
15 studies in your report, correct?

16 A. Correct.

17 Q. All right. So epidemiologists serve a  
18 valuable service in determining cancer causation,  
19 right?

20 A. Yes.

21 Q. Okay. In fact, many of the discoveries of  
22 causation of cancer have been the result of work that  
23 epidemiologists have done on populations, right?

24 A. That is correct.

25 Q. All right. That's how -- going back to

1 our hormone thing -- that Prempro -- epidemiologist  
2 Don Austin discovered that connection between hormone  
3 use and women developing breast cancer, right?

4 A. I'm sorry. Did you give me the name of  
5 someone who discovered that?

6 Q. Yes. Donald Austin, an epidemiologist out  
7 of Oregon.

8 A. I don't know that either way.

9 Q. All right. But you do know that  
10 epidemiologists are the ones that brought that to the  
11 forefront of the health community's attention, that  
12 hormone replacement was causing breast cancer in  
13 women, correct?

14 A. Correct.

15 Q. All right. That wasn't done by a  
16 hematologist; that wasn't done by an oncologist; that  
17 wasn't done by anybody at The Ohio State University,  
18 correct?

19 A. So you're asking me a question I don't  
20 know the answer. I'm an epidemiologist, an  
21 oncologist. It may be that Dr. Austin or anyone else  
22 are also oncologists. So I'm not even sure what  
23 you're trying to imply by the question.

24 Q. Well, Dr. Austin, I'll represent to you  
25 since he was an expert in my breast cancer cases, is



1 strictly an epidemiologist.

2 My question to you is epidemiologists are  
3 the -- is the discipline that usually uncovers what  
4 the causes of cancers are as opposed to an oncologist  
5 or a hematologist; is that fair?

6 MR. COLÓN: Objection as to form.

7 A. Well, epidemiologists or toxicologists  
8 will do that. There's a lot of disciplines that  
9 could do that, of which they may or may not be  
10 oncologists.

11 Q. You've never on your own published what  
12 the cause of a particular cancer was; is that fair?

13 A. Are you kidding me? Did you look at my  
14 CV?

15 Q. What cancers have you discovered and what  
16 causes them?

17 A. Discovered? I mean, my entire research  
18 career is on the causes of cancer. You asked me  
19 before about lung cancer and breast cancer. That's  
20 all I do.

21 Q. My question is what publication or where  
22 is it that you yourself discovered that smoking  
23 causes lung cancer or that hormone replacement  
24 therapy caused breast cancer? Is there any such --  
25 what do we want to call it -- an aha moment that

1 **you've had where you've said that?**

2 A. So epidemiologists never have an aha  
3 moment, just to be clear. So I don't know what  
4 you're talking about with Dr. Austin.

5 But epidemiology is all about the  
6 consistency of studies. The aha moment, I guess, is  
7 when the 10th study comes out and says the same thing  
8 and does it better than the previous nine. That's  
9 not really an aha moment. We evolve. We're a  
10 dynamic discipline. There's no, like, discovery,  
11 like, boy, I just found that gene in a test tube.

12 **Q. Well, there are physicians that do that**  
13 **though, right?**

14 A. Do what?

15 MR. COLÓN: Objection as to form.

16 BY MR. ROBB:

17 **Q. That discover the one thing that tells you**  
18 **what causes a particular disease.**

19 MS. FORGEY: Objection. Form.

20 A. Oh, that's such a vague thing, I'm not  
21 going to answer that question.

22 **Q. Jonas Salk discovered polio, did he not?**

23 MR. COLÓN: I think he developed the polio  
24 vaccine.

1 BY MR. ROBB:

2 **Q. Polio vaccine. I apologize. Right?**

3 A. That's right. He did it, but I don't know  
4 whether he had an aha moment.

5 **Q. All right. Let's go back to**  
6 **Dr. Goldsmith. You see where he works -- he's worked**  
7 **for the National Institute of Health?**

8 A. Yeah. I'm pulling up his CV because I  
9 think we need to go to the source here. I would like  
10 to know exactly what INH he worked at.

11 **Q. Why do you cast dispersions on a physician**  
12 **that you've never had the opportunity to speak to?**

13 MS. FORGEY: Objection. Form.

14 MR. COLÓN: Objection as to form.

15 BY MR. ROBB:

16 **Q. I mean, do you think it's correct to say**  
17 **he probably -- he doesn't know what he's talking**  
18 **about when he puts things down like this?**

19 A. Well, you know, you keep mischaracterizing  
20 what I said. I think the report speaks for itself.

21 **Q. Well, but you just said he doesn't -- he**  
22 **may not know where he works at the National Institute**  
23 **of Health.**

24 A. No. I said you don't know. You don't  
25 know, Mr. Robb.

1 **Q. So now you're going to turn on me?**

2 A. No. I'm trying to --

3 MR. COLÓN: He's not turning on anyone,  
4 Mr. Robb.

5 A. Mr. Robb, I'm trying to explain to you  
6 that the NIH has multiple institutes, and that's  
7 important to me because if Dr. Goldsmith worked at  
8 the NCI, the National Cancer Institute, that's  
9 different than if he worked at some other institute  
10 that doesn't deal with cancer.

11 This is a cancer case. That's what I'm  
12 talking about in terms of your experts. You wouldn't  
13 go -- if you had cancer, you wouldn't go to be  
14 treated by a primary care doctor, an infectious  
15 disease doctor; and you've hired experts that don't  
16 have expertise in cancer.

17 MR. ROBB: Again, I just move to strike as  
18 unresponsive.

19 BY MR. ROBB:

20 **Q. Now, Dr. Frank, you know, deals with**  
21 **cancers every day, does he not?**

22 A. I don't think so.

23 **Q. Well, have you seen his work with meso --**  
24 **meso -- I can't even pronounce the word. Meso -- say**  
25 **it for me. Meso -- or whatever it is.**

1 A. I have no idea what you're talking about.

2 **Q. You know what I'm talking about, silica**  
3 **and --**

4 MR. COLÓN: Mesothelioma.

5 MR. ROBB: Thank you very much, Francisco.

6 BY MR. ROBB:

7 **Q. Right?**

8 A. I'm sorry. I don't think Dr. Frank treats  
9 mesothelioma patients.

10 **Q. Does he not evaluate those type of**  
11 **patients?**

12 MR. COLÓN: Object as to form.

13 A. Are you asking me is he extensively  
14 involved in litigation as an expert about  
15 mesothelioma? That's my understanding. I don't  
16 think he treats any mesothelioma patients.

17 **Q. Well, Doctor, that's a cancer, is it not?**

18 A. That is a cancer.

19 **Q. All right. It's a cancer that somebody**  
20 **contracts by inhaling particles, correct?**

21 A. Asbestos, they can, depending upon the  
22 dose and the circumstance.

23 **Q. And that's not too unlike Benzene and**  
24 **inhaling Benzene, is it?**

25 MS. FORGEY: Objection. Form.

1 MR. COLÓN: Objection as to form.

2 A. What's not too -- I guess I just lost the  
3 question.

4 Q. I'm just saying, you inhale -- you can  
5 inhale asbestos and end up with a cancer; you can  
6 inhale Benzene and end up with a cancer also,  
7 correct?

8 MS. FORGEY: Objection. Form.

9 A. At sufficient doses, it will increase your  
10 risk for AML.

11 Q. Doctor, I think we've established, and I  
12 don't want to go back, but did you not testify that  
13 Benzene does cause AML?

14 A. At sufficient doses, it could do that.

15 Q. All right. So going back now to  
16 Dr. Goldsmith, have you pulled up his CV?

17 A. I have.

18 Q. Did he work for the National Institutes of  
19 Health?

20 A. I'm still looking for that.

21 Q. While you're looking for that --

22 A. See, this is one of those things where,  
23 you know, it makes me a little bit concerned because  
24 I don't see that, so maybe you need to help me out  
25 because I want to make sure you're not

1 misrepresenting the circumstances here.

2 Q. Doctor, what I told you to do five minutes  
3 ago was to go to his report -- okay -- where he talks  
4 about his professional background and expertise --  
5 it's dated December 13, 2013 -- where he goes through  
6 all of his qualifications.

7 A. Yeah.

8 Q. Do you have that?

9 A. I do.

10 Q. Okay. And you see down in the bottom part  
11 of that first paragraph, he says, "I have acted in a  
12 professional capacity as adviser to many federal,  
13 state, and international agencies." Do you see that?

14 A. Yes.

15 Q. He then goes on to talk about those  
16 agencies include the U.S. and California  
17 Environmental Protection Agency, EPA.

18 A. Yes.

19 Q. The National Institutes of Health, right?

20 A. Yes. So keep reading that for a second.  
21 So it's National Cancer Institutes -- I'm sorry --  
22 National Institute of Health, right? Okay.

23 Q. National Institute for Occupational Safety  
24 and Health.

25 A. Yeah.

1 Q. All right. Centers for Disease Control  
2 and Prevention, CDC, right?

3 A. That's what he wrote.

4 Q. They deal with cancer, right, the CDC?

5 A. They do, to some extent.

6 Q. Okay.

7 A. Not the causes of cancer.

8 Q. Well, let's just go over then to the next  
9 page where he talks about where he's worked as a  
10 peer-review for --

11 A. So I just want to be clear here because  
12 I'm searching on his -- oh, I see. So he's talking  
13 about on his CV -- I searched on National Institute  
14 to see where he is, and what I see here is in 1976,  
15 he had a one-year National Institute of Environmental  
16 Health Sciences traineeship. Otherwise, I don't see  
17 that.

18 Q. Where are you looking at?

19 A. On his CV.

20 Q. Okay. Now, go to the second page of that  
21 report where he talks about that he's worked at  
22 the -- he's been a grant review -- he's been on grant  
23 review panels at the National Cancer Institute. Do  
24 you submit documents to the National Cancer  
25 Institute?



1 A. Sure.

2 **Q. All right. So he's one of the people**  
3 **that's paid by them to review studies presented to**  
4 **them by physicians such as yourself --**

5 MS. FORGEY: Objection. Form.

6 BY MR. ROBB:

7 **Q. -- right?**

8 A. That's correct, I guess. I don't know.  
9 I'm looking for his -- let me finish.

10 I'm taking for face value that's what he's  
11 actually done. What I see on his CV is then 2006 he  
12 was a study section member for exploratory grants for  
13 NCI Cancer Information Service, and I certainly  
14 don't -- that's an information thing. That's not a  
15 research grant sort of thing. So where I submit  
16 grants, he would not be on a review panel.

17 **Q. Well, he's on a review panel for the**  
18 **National Institutes of Health. Do you submit grant**  
19 **proposals to them?**

20 A. Yeah. But not to what he does. He's not  
21 doing the type of research on the causes of cancer,  
22 and the panels he's been on have nothing to do with  
23 the causes of cancer.

24 **Q. What panel was he on as a grant review for**  
25 **the National Institute of Health --**

1 MS. FORGEY: Objection. Form.

2 BY MR. ROBB:

3 **Q. -- that allows you to make that comment?**

4 A. He was on a grant review panel for the  
5 Cancer Information Service. Those are the people who  
6 run the 1-800 NCI number for people who want to know  
7 about cancer.

8 **Q. That's going back to his earlier -- where**  
9 **he talks about where he's an adviser, right?**

10 A. No. That was the review -- the only  
11 review panel that I see on his CV -- I could be  
12 wrong -- I'm searching it -- is in -- I'll give you  
13 the date -- it's really hard because he put it down  
14 as NCI -- that's a lot of words -- I have 2006 Study  
15 Section Member for Exploratory Grants for the NCI  
16 Cancer Information Service. So those are the people  
17 who give out information to people for public  
18 education. It's nothing to do with causes of cancer.  
19 I could be wrong. Maybe he's on some other panel I'm  
20 not seeing.

21 **Q. Those are the people that review the**  
22 **information that comes in from people like yourself**  
23 **and determines what they want to disseminate for the**  
24 **public, correct?**

25 A. Actually, I don't know what they do well

1 enough to answer that question.

2 Q. All right. Well, thank you. You have in  
3 your report that you shouldn't rely upon government  
4 agencies -- let me see if I can find the language. I  
5 apologize. I'm shuffling some things around here.

6 You put in your report at one point  
7 that -- hold on a second. I've got to keep flipping  
8 around.

9 You put down about Regulatory and Review  
10 Agency Classifications. You have a section of that  
11 in your report. Okay?

12 A. That's right.

13 Q. On page 19. And you basically say that  
14 their conclusions focus on protecting public health,  
15 but there's limitations to the scientific data, and  
16 basically you shouldn't put a whole lot of stock into  
17 what they find. Is that pretty much what you're  
18 saying there?

19 MS. FORGEY: Objection. Form.

20 A. No.

21 Q. Okay. Well, you're saying that they're  
22 not the end-all, right?

23 A. No.

24 MS. FORGEY: Objection. Form.

25 A. End-all to what end?

1 Q. Well, I mean, you shouldn't rely upon them  
2 solely as proof of one thing or another; is that  
3 fair?

4 A. For what context?

5 Q. Cancer causation.

6 A. Again, what context?

7 Q. Doctor, should you rely upon regulatory  
8 and review agency classifications regarding what  
9 causes particular leukemias?

10 MS. FORGEY: Objection. Form.

11 A. Again, you have to give me the context.  
12 It's too vague.

13 Q. I can't ask that question any simpler than  
14 that, Doctor.

15 A. So why don't you ask me what are the  
16 possible contexts?

17 Q. My question to you, Doctor, is you in your  
18 report say that regulatory and review agency  
19 classifications aren't necessarily the final word on  
20 what causes a particular disease; is that fair?

21 MS. FORGEY: Objection. Form.

22 MR. COLÓN: Objection as to form.

23 A. It depends on the context, and I think the  
24 report speaks for itself.

25 Q. Well, what context are you talking about?

1 A. So the regulatory review agencies have a  
2 goal to protect public health. They review the  
3 literature, they assist, and they explicitly state,  
4 like IARC does, that they're there to assist  
5 governmental agencies' regulators with prioritizing  
6 which chemicals to regulate first, harder, look  
7 closer, you know, whatever it is that they need to  
8 do. That's an important role for them. And although  
9 I don't agree 100 percent with their determinations,  
10 I agree with most of them. But I also understand the  
11 context and understand that in those cases, maybe  
12 reasonable people may disagree.

13 The context that's important here is the  
14 use of their designations for individual risk  
15 assessment is inappropriate, and they state that, so  
16 you can't rely on them for that.

17 Having said that, if they review  
18 literature and say that something -- there's  
19 insufficient data to establish a causal conclusion,  
20 that is very helpful because they're following what's  
21 called the precautionary principle. So they're being  
22 cautious, and that's what we want -- that's what I  
23 would want them to do. I shouldn't say we because  
24 maybe some people would disagree with me. But we  
25 want to protect people.

1 But in that context, they're going to be  
2 more willing to label something as a carcinogen to  
3 help with regulation. So if they say that there's  
4 insufficient evidence, that's very important to know.

5 And then -- but then for an individual  
6 causation, if they say there's insufficient evidence,  
7 that's, you know, that's an expert panel that's  
8 looked at this and said, well, we've looked at the  
9 data, and we can't even follow precautionary  
10 principle and come to a conclusion of causation. So  
11 for that perspective, it's helpful for individual  
12 risk assessment. But because they say that something  
13 is a cancer causing agent does not necessarily mean  
14 that it will cause cancer in people, and they're  
15 pretty explicit on that.

16 **Q. Doctor, in your report, you say, "It's**  
17 **clear that they instruct the reader to not infer**  
18 **individual causation from their classification**  
19 **assessments," correct?**

20 A. Exactly.

21 **Q. All right. So they don't want anybody to**  
22 **do that, including any of the physicians that may be**  
23 **looking at this particular case, correct?**

24 MS. FORGEY: Objection. Form.

25 A. Exact -- well, again, in the context that

1 I just said where following the precautionary  
2 principle, if they conclude that there's insufficient  
3 data, that means you don't have general causation.  
4 If you don't have general causation, you don't have  
5 individual causation.

6 MR. ROBB: Let me just move to strike and  
7 see if you can answer my question, Doctor.

8 BY MR. ROBB:

9 **Q. My question is in your report, you agree**  
10 **that the regulatory and review agencies, which would**  
11 **include IARC and some of the other ones, "It is clear**  
12 **that they tell you not to infer individual causation**  
13 **from the classification assessments," that's what you**  
14 **wrote in your report, correct?**

15 A. That's what I wrote.

16 **Q. Okay. I'm sorry. We asked you some time**  
17 **ago about your invoices. Do you have them now?**

18 MS. FORGEY: Yeah. I have them  
19 electronically. I don't have hard copies, but I can  
20 certainly look at them.

21 MR. ROBB: That's fine. Just, if you can,  
22 show them to the Doctor and have him testify as to  
23 how much he's been paid for his opinions in this  
24 particular case.

25 THE WITNESS: Boy, I'm looking at an

1 iPhone here. So we have one invoice that was dated  
2 February 28, 2014. That bill was for \$24,480. And  
3 then --

4 BY MR. ROBB:

5 **Q. I'm sorry. How much was that for? I**  
6 **apologize.**

7 A. \$24,480. Is there a second page?

8 MS. FORGEY: Second page.

9 A. How do I do that?

10 Then I have an invoice for April 30, 2014,  
11 and that is for \$1,750.

12 **Q. Okay. All right. Now, let's see if we**  
13 **can just wrap this up -- okay -- so everybody can get**  
14 **on their way. I'm going to go back and ask you a few**  
15 **things.**

16 Doctor, in order to -- in order for you,  
17 and in your practice and the way you conduct yourself  
18 when you're trying to determine what the cause of  
19 something is, you do employ the principles of the  
20 Bradford Hill criteria, correct?

21 A. I generally follow them. That's correct.

22 **Q. Okay. And in the past, when you have**  
23 **testified about what the cause of something is, you**  
24 **would have, obviously, before you made such a**  
25 **determination, considered those factors; is that also**



1 fair?

2 A. Likely.

3 Q. Okay. And in this particular case, you're  
4 of the opinion that Benzene does not cause CML no  
5 matter what the exposure; is that correct?

6 A. At the levels of exposure that have been  
7 studied across the scientific literature, that's  
8 correct.

9 Q. Okay. But let me reask it then. Is there  
10 an exposure where Benzene will cause CML?

11 A. Not that we've identified scientifically.

12 Q. And in this particular case, you'll agree  
13 that there are institutions, well-respected  
14 institutions, that recognize an association of  
15 Benzene to CML; you recognize that, right?

16 MS. FORGEY: Objection. Form.

17 A. Well, I recognize that there's websites  
18 that report that that come from those institutions  
19 that we've gone through for 11 different websites.

20 Q. Okay. And we've established that many of  
21 those websites, you know, you are aware of those  
22 institutions, and they're fine institutions, correct?

23 A. Not necessarily. There's many there that  
24 I didn't recognize.

25 Q. Well, okay. The Cleveland Clinic, you

1 **recognize that?**

2 A. I know them.

3 **Q. Johns Hopkins, you recognize that?**

4 A. I know of them.

5 **Q. You acknowledged the fact that states have**  
6 **cancer registries or agencies, correct?**

7 A. Sure. States have registries. I have no  
8 idea what you're talking about for the first part of  
9 that question.

10 **Q. Well, Montana, the State of Montana's**  
11 **determination that CML and Benzene are associated,**  
12 **that there's a well-documented association, we went**  
13 **over that, right?**

14 MS. FORGEY: Objection. Form.

15 A. I don't know whether they stated  
16 well-documented, and I don't know what the role of  
17 that group is within the State of Montana. I've  
18 never heard of them before.

19 **Q. All right. Well, you don't do any work in**  
20 **Montana, right?**

21 **So you agree though that there is evidence**  
22 **or literature outside of -- well, strike that.**

23 **You would agree that there's literature**  
24 **and evidence outside of litigation that CML is**  
25 **associated with Benzene exposure?**

1 A. We've talked about this before. The only,  
2 you know, I could be off by one, but I only know of  
3 about one-and-a-half studies that report a  
4 statistical association. Maybe there's one or two  
5 more among the dozens of studies that one could look  
6 at to inform your question.

7 **Q. I understand that, Doctor. But my**  
8 **question was beyond studies. There's literature and**  
9 **there's informational websites, there's hospital**  
10 **websites that all stand for the proposition that I**  
11 **presented to you today, that CML is associated with**  
12 **Benzene exposure?**

13 MS. FORGEY: Objection. Form.

14 BY MR. ROBB:

15 **Q. You concede that, right?**

16 A. That's such a broad question when you said  
17 "all."

18 **Q. Let me --**

19 A. Let me finish. Excuse me. Let me finish.  
20 No. I've got to finish the question. You've got a  
21 question pending. You can ask the question  
22 afterwards.

23 **Q. I withdrew the question, Doctor.**

24 **My question to you is I have shown you at**  
25 **least 11 examples of institutions that -- and doctors**

1 **that disagree with your opinion that CML has nothing**  
2 **to do with Benzene, correct?**

3 MS. FORGEY: Objection. Form.

4 MR. COLÓN: Objection as to form.

5 A. So there's a number of them that use the  
6 word "may." One of them specifically stated that  
7 most people are not even exposed to the dose levels  
8 of Benzene that would trigger a response. So some of  
9 them don't support the question you just asked.

10 **Q. Doctor, have I shown you a number of**  
11 **studies today -- and I'm sorry. Let me rephrase.**

12 **Doctor, I've shown you 11 exhibits today**  
13 **that all discuss CML and Benzene exposure, correct?**

14 A. Correct.

15 MR. COLÓN: Objection as to form.

16 BY MR. ROBB:

17 **Q. And in not one of those, of the 11**  
18 **exhibits that I showed you, do they specifically say**  
19 **that Benzene is not associated in any shape or form**  
20 **with CML, does it?**

21 A. I'm sorry. You're asking me whether or  
22 not these 11, whether or not any of them say that  
23 Benzene is not associated in any shape or form with  
24 CML? Correct. Those 11 websites that you picked off  
25 out of a Google search or whatever don't say that.

1 Q. Okay. You didn't include any of those in  
2 your references, correct?

3 A. I didn't include any websites from cancer  
4 centers or associations in my references.

5 Q. You also didn't include Dr. Kopstein's  
6 peer-reviewed articles about exposure in your  
7 references either, correct?

8 MR. COLÓN: Objection as to form.

9 A. That's correct. I did not include his  
10 references.

11 Q. All right. You didn't include in your  
12 references the study that was done by Dr. Savitz and  
13 Dr. Andrews at the North California School of Health  
14 that concluded that Benzene was linked to chronic  
15 myeloid leukemia? And that's in the "Review of  
16 Epidemiological Evidence on Benzene and Lymphatic" --  
17 and, again, I'm going to spell this for the court  
18 reporter just because I can't say it --  
19 H-e-m-a-t-o-p-o-i-e-t-i-c -- Cancers" in the American  
20 Journal of Industrial Health. You don't have that  
21 cite anywhere either, do you?

22 A. I don't recall that publication. It's not  
23 cited in my report.

24 Q. Okay. But there's another study out there  
25 that was done that you didn't take the time to locate

1 or include in your list of references; is that  
2 correct?

3 MS. FORGEY: Objection. Form.

4 A. I don't think you can assume that. I  
5 guess I need to see the article to see if it brings  
6 anything to bear on this case at all and whether it's  
7 going to ring any bells.

8 Q. Well, it specifically talks about CML, and  
9 it's in the American Journal of Industrial Health.  
10 You didn't --

11 A. I can't rely -- I can't rely on what  
12 you're saying about the title. I need to see the  
13 paper.

14 MS. FORGEY: Do you want to e-mail it to  
15 us?

16 MR. ROBB: No. I'm not going to provide  
17 the Doctor with papers that he didn't bother to look  
18 at.

19 MS. FORGEY: I thought you wanted to ask  
20 him about it.

21 THE WITNESS: And just for the record,  
22 that just totally misclassified and grossly -- boy, I  
23 don't even know how to finish that sentence -- but  
24 that was just really bad what you just said.

25

1 BY MR. ROBB:

2 **Q. Well, Doctor, you're saying that there's**  
3 **only two or three studies, yet you're not aware of**  
4 **all the studies that have addressed this issue; isn't**  
5 **that fair?**

6 A. I've done a pretty exhaustive search on  
7 this, and I would bet that I've probably read  
8 everything; but, you know, there actually are a lot  
9 of papers out there on CML and Benzene, and they're  
10 pretty consistent, but I can't promise you that I  
11 haven't missed one, nor as I sit here, you should not  
12 infer that I'm not familiar with the paper you're  
13 saying. You're reading me a title. It's not ringing  
14 any bells.

15 **Q. Doctor, look on your list of references**  
16 **and tell me if you see the last name of Savitz,**  
17 **S-a-v-i-t-z, or Andrews anywhere in your references.**

18 A. I did not cite that particular paper.  
19 That's all I could tell you. But you should not  
20 infer that I haven't seen it, I haven't reviewed it,  
21 that I haven't discounted it; I didn't forget I was  
22 writing this report, and if there's something in  
23 there that's going to change my opinion, I'll be glad  
24 to see the paper, so show me the paper.

25 **Q. Well, if the paper says that Benzene**

1 **exposure is associated with CML, are you going to**  
2 **change your opinion?**

3 MS. FORGEY: Objection. Form.

4 A. You know, if that's the definitive study  
5 out there, then I would certainly consider it. If  
6 it's a review article or a badly designed study, then  
7 no. There may be a very good reason why I didn't  
8 cite it. I just don't remember the paper.

9 **Q. So this paper could change your whole way**  
10 **of thinking that you've had from the 19 -- late '80s**  
11 **and early '90s that Benzene doesn't cause CML, is**  
12 **that what you're telling me this paper could**  
13 **potentially do?**

14 A. No, Mr. Robb. It's highly unlikely that  
15 that would be the case. I just need to see the  
16 paper.

17 MR. COLÓN: Objection as to form.

18 Mr. Robb, that's not what he said. You're  
19 mischaracterizing his testimony.

20 MS. FORGEY: It's patently unfair to ask  
21 him about what a paper would or would not do to his  
22 opinion when he doesn't have it in front of him.

23 MR. ROBB: Well, again --

24 MR. COLÓN: He gave a very thorough answer  
25 as to, you know, what the paper may or may not say,



1 what he may or may not have considered, why he may or  
2 may not have not cited it.

3 BY MR. ROBB:

4 **Q. Doctor, I guess my point is there are**  
5 **papers that deal with chronic myeloid leukemia that**  
6 **you may not have reviewed in reaching your opinions**  
7 **in this case.**

8 A. I think that that's unlikely, but I can't  
9 promise you that I have seen everything out there in  
10 the world's literature. But I will tell you that  
11 it's likely that I have seen virtually everything out  
12 there in the world's literature.

13 **Q. Those 11 things I sent to you that are**  
14 **part of the exhibits today, did you see them at all**  
15 **before?**

16 A. You gave me websites, dude. I have no  
17 stock or credibility --

18 **Q. Dude?**

19 A. -- in these -- in these websites that  
20 you're giving.

21 You haven't asked me how cancer centers  
22 put these websites together, which I know. They're  
23 not credible. Whether they say they do cause CML or  
24 don't, they really don't have much bearing on my  
25 opinions as an expert in cancer causation. They're

1 not done by people who are experts in cancer

2 causation. And, again, if you had lung cancer, you

3 would not go to a dermatologist to get treated.

4 **Q. Doctor, are you saying that the Cleveland**  
5 **Clinic is putting out false information to their**  
6 **potential patients?**

7 A. Now that I see this, I need to e-mail some  
8 of my friends at the Cleveland Clinic and ask them  
9 how is it that they put this together.

10 I need to -- you have to give me a break  
11 for one second.

12 **Q. Sure.**

13 **(Off the record.)**

14 BY MR. ROBB:

15 **Q. All right. Doctor, you say you have**  
16 **colleagues at the Cleveland Clinic?**

17 A. Sure.

18 **Q. All right. You've never designed a**  
19 **hospital or a facility's website, correct?**

20 A. Well, I don't know what you mean by  
21 designed. I occasionally contribute to website  
22 content.

23 **Q. So doctors then contribute to the website**  
24 **content, right?**

25 A. Sometimes, sometimes not.

1 Q. Okay. But in your instance, have you  
2 contributed content to any websites?

3 A. I have.

4 Q. Which ones?

5 A. We've had websites on tobacco at  
6 Georgetown, occasionally our marketing -- so the  
7 websites are usually done through marketing, and  
8 sometimes the marketing people ask physicians for  
9 content and sometimes they don't. I can't remember  
10 any other ones offhand. But I know that I've  
11 certainly designed a number -- or not designed -- but  
12 contributed to a number of different websites over  
13 time.

14 Q. When you do contribute to a website, as a  
15 physician, you want to make sure that the information  
16 that goes on that website is accurate, correct?

17 A. Sure.

18 MR. COLÓN: Objection as to form.

19 A. If I'm asked. It doesn't mean -- we can't  
20 assume that they've asked.

21 Q. Well, after you give them the information,  
22 don't you go back and check to see what they are  
23 citing that you gave to them?

24 A. Actually, interestingly enough, I guess I  
25 haven't.

1 Q. All right. You work at the Lombardi  
2 Cancer Center?

3 A. No.

4 Q. Is it the Lombard Cancer Center?

5 A. No. I don't work at the Lombardi Cancer  
6 Center. If you're asking me did I in the past, the  
7 answer is yes.

8 Q. That was my question, and I probably  
9 mumbled it. You have worked there in the past,  
10 right?

11 A. Correct.

12 Q. And how often do you see patients  
13 currently?

14 A. One day a week.

15 Q. You don't have a private practice, do you?

16 A. Well, my practices as it has always been  
17 is part of the University.

18 Q. And the work that you're doing here, it  
19 goes to you, right; it doesn't go to the University?

20 A. That's correct. I'm independent. It's  
21 declared as an outside activity.

22 Q. Okay. Did you see where Dr. Frank's  
23 compensation actually goes to his University?

24 A. That's what he stated.

25 Q. But you've set up a separate entity to get

1 paid when you serve as an expert witness; is that  
2 fair?

3 A. I haven't set up a separate entity.

4 Q. All right. So it's just made out to you.  
5 How should I make this check out that I'm going to  
6 have to write to you when I get done today?

7 A. It's to me.

8 Q. Okay. Again, just wrapping up, we've  
9 talked about things. There's the -- you do agree  
10 with me that there are statistically relevant studies  
11 that show a connection between CML and Benzene  
12 exposure, correct?

13 MR. COLÓN: Objection as to form.

14 A. Like I've said many times, offhand, I can  
15 only think of one-and-a-half. Maybe I'm forgetting  
16 about something. But among dozens of studies that  
17 assess this, I've got one-and-a-half where I could  
18 agree with your question.

19 Q. Okay. So the simple answer to my question  
20 would be, yes, there are studies that show a -- that  
21 are statistically significant that show an increased  
22 risk of somebody developing CML by being exposed to  
23 Benzene; is that fair?

24 MR. COLÓN: Objection.

25 A. Well, I guess if you are looking for that

1 simple answer, I would say there are study, so one.

2 **Q. Okay. And can you point to any of the**  
3 **studies that you relied upon that dealt strictly with**  
4 **solvent -- Safety-Kleen's Virgin Solvent 105?**

5 A. Well, Virgin Solvent 105 is mineral  
6 spirits, and mineral spirits are cited in my report.

7 **Q. Doctor, my question to you is of any of**  
8 **the studies that you are relying upon, are any of**  
9 **those -- is the product Safety-Kleen Virgin Solvent**  
10 **105 mentioned?**

11 MS. FORGEY: Objection. Form.

12 A. So among the mineral spirits studied, I  
13 haven't seen them mentioning Safety-Kleen Solvent  
14 105. That's usually not what publications do. They  
15 don't name individual products.

16 **Q. Well, Doctor, you don't know what mineral**  
17 **spirits that they tested in any of those studies**  
18 **then, correct?**

19 A. I would not know the origin of the mineral  
20 spirits in those studies.

21 **Q. You wouldn't know if it was Safety-Kleen**  
22 **or some other solvent that was manufactured by**  
23 **somebody else, correct?**

24 A. Well, I have no reason to believe that.  
25 Mineral spirits are so different. Safety-Kleen 105

1 looks to me like it's mineral spirits as anyone would  
2 use, but they don't usually put that information in  
3 the publication.

4 **Q. Doctor, are you aware of any mineral**  
5 **spirits that are banned in all 50 states?**

6 A. Mineral spirits are widely used by, I  
7 don't know, maybe more than 100,000 workers every  
8 day, so I have no idea what you're talking about.

9 **Q. Doctor, are you aware of any product,**  
10 **other than the Safety-Kleen product, that is banned**  
11 **for sale in all 50 states here in the U.S.?**

12 MS. FORGEY: Objection. Form.

13 A. You're asking me to assume that there's a  
14 ban for the sale of Safety-Kleen. We've been through  
15 that before. That's not ringing any bells to me, so  
16 I'm not aware of any such bans.

17 **Q. Okay. Doctor, I'm going to tell you that**  
18 **we have the Material Safety Data Sheet on -- that**  
19 **Safety-Kleen has provided to us in this particular**  
20 **case, and I'll read it to you again because we did**  
21 **talk about this.**

22 It says, "As of June of 2011, this product  
23 is only for sale and use in Puerto Rico. Use of this  
24 solvent anywhere else is strictly prohibited." Okay.  
25 That means you can't use it anywhere else but

1 **Puerto Rico.**

2 **Do you know of any other mineral spirits**  
3 **that you have seen a study on that's been banned for**  
4 **sale anywhere but Puerto Rico?**

5 MS. FORGEY: Objection. Form.

6 A. I think you're asking me a legal question.  
7 So prohibited doesn't mean that it's banned, at least  
8 as far as I know, but I'm not a lawyer.

9 Secondly, I don't know why that is  
10 prohibited to be used. Like I said, there could be a  
11 lot of reasons, and so I wouldn't necessarily know  
12 about bans or not. But, again, mineral spirits are  
13 widely used every day all over our country.

14 **Q. Doctor, my question -- what does strictly**  
15 **prohibited mean to you?**

16 A. It means that the manufacturer is telling  
17 us not to use it somewhere else.

18 **Q. Okay. All right.**

19 A. So but it's actually kind of funny. If it  
20 was a safety issue, why would it be it's okay to use  
21 in Puerto Rico, but we don't want to risk people in  
22 Mississippi? I guess your question is just making no  
23 sense to me.

24 **Q. Yeah. It doesn't make much sense to my**  
25 **client either in Puerto Rico.**



1 A. Maybe it's that, you know, Puerto Ricans  
2 are more healthy and so they can handle these types  
3 of exposures. Obviously, that's absurd, and so I  
4 just -- I don't even know how to answer your  
5 questions because --

6 Q. Well, my --

7 A. -- it's not my expertise.

8 Q. My question was pretty simple, Doctor. My  
9 question is are you aware of any other mineral spirit  
10 product that cannot be used anywhere but  
11 Puerto Rico --

12 MS. FORGEY: Objection. Form.

13 BY MR. ROBB:

14 Q. -- other than the Safety-Kleen products?

15 A. I don't follow this. It's not my  
16 expertise. I wouldn't be aware of it either way.

17 Q. Let's see if we can use common sense  
18 because, again, Doctor, a product that is banned for  
19 use anywhere in the United States but can only be  
20 used in Puerto Rico, does that indicate to you that  
21 that's a product that is harmless to the rest of the  
22 population?

23 MS. FORGEY: Objection. Form.

24 MR. COLÓN: Objection as to form. Asked  
25 and answered.

1 A. I've answered that question already. You  
2 want me to answer it again?

3 **Q. No, because I won't get the answer.**

4 **Do you know of any mineral spirit that is**  
5 **banned in the State of California because -- other**  
6 **than Safety-Kleen for causing cancer?**

7 MS. FORGEY: Objection. Form.

8 A. You're making the assumption -- I'm  
9 telling you that I don't know anything about the ban.  
10 I don't know anything about the circumstances of the  
11 ban, if there is such a ban, it's not certainly  
12 ringing any bells for California or anywhere else,  
13 but I wouldn't follow that. And so you're asking me  
14 a question that's actually not common sense because  
15 it's so vague, I can't answer it.

16 **Q. California Environmental Protection Agency**  
17 **has banned Safety-Kleen 105 Virgin Solvent from being**  
18 **used in their state. Okay. Does that indicate to**  
19 **you that that's a safe product if an environmental**  
20 **protection agency bans its sale?**

21 MR. COLÓN: Objection as to form.

22 MS. FORGEY: Objection. Form. And object  
23 to the sidebar.

24 A. So can you tell me why they "banned" it?

25 **Q. Do you think they banned it because it was**

1 **safe?**

2 A. Could be transportation issues, if it's  
3 banned at all. So I don't know. There could be a  
4 lot of reasons that are outside my area of expertise  
5 for them to not use the product.

6 **Q. The reason it's banned, sir, is because it**  
7 **causes cancer.**

8 MS. FORGEY: Objection. Form. And object  
9 to the sidebar.

10 BY MR. ROBB:

11 **Q. Right? I mean, that's what it says right**  
12 **here. The reason it's not sold in California is**  
13 **because it causes cancer.**

14 A. What are you reading?

15 **Q. I'm reading from the MSDS.**

16 A. And the MSDS says that this can't be sold  
17 in California because it causes cancer? I find that  
18 pretty highly unlikely. Maybe you should e-mail the  
19 document.

20 **Q. All right. It's Section 15.**

21 A. Can you e-mail the document?

22 MR. ROBB: No. I'm through. Okay. I'm  
23 through asking you questions.

24 THE WITNESS: Okay. Thank you.

25 MS. FORGEY: Are you passing the witness?

1 MR. ROBB: I am passing this witness.

2 MS. FORGEY: Francisco, do you have  
3 anything?

4 MR. COLÓN: No.

5 MS. FORGEY: Okay. Dr. Shields, I just  
6 have a few questions.

7 EXAMINATION

8 BY MS. FORGEY:

9 **Q. First of all, you were asked what fields**  
10 **you have expertise in. One of the fields that you**  
11 **mentioned was exposure. Do you recall that?**

12 A. Yes.

13 **Q. What do you mean by saying that you were**  
14 **an expert in exposure?**

15 A. So as an expert in cancer causation and  
16 someone who has done epidemiologic studies over many,  
17 many years, critical to understanding risks is levels  
18 of exposure, so every study that I approach we  
19 consider the level of exposure.

20 In this case in particular, for me to be  
21 able to say whether or not -- let's assume  
22 hypothetically we had a person with AML that's caused  
23 by Benzene. First question in general causation is  
24 can it cause leukemia? Can Benzene cause AML at any  
25 level of exposure? Because if the answer is no, then

1 you're done.

2 And if the answer is yes, the next most  
3 important thing is what are those relevant human  
4 exposures? Okay. Because if someone is not exposed  
5 to that level, it's not relevant for them. So that's  
6 your second part of general causation.

7 And that's kind of in -- now you could  
8 actually say that's also part of individual risk  
9 assessment, but someone's got to do it.

10 So as my expertise as trying to understand  
11 the causes of cancer generally in individuals, I have  
12 to understand how much Benzene is in Safety-Kleen.  
13 How do I relate that to the general literature? What  
14 are the circumstances out in the workplace that give  
15 more exposure or potential exposure levels than  
16 alleged by even Dr. Kopstein for Safety-Kleen?

17 If I find those industries, those workers,  
18 I can look at their disease risk, in this case CML,  
19 and if they're not getting disease risk, then  
20 Mr. Campos is not at an increased disease risk from  
21 working with Safety-Kleen. But I have to have that  
22 level of exposure. So I have to understand that and  
23 relate it to the epidemiologic literature.

24 **Q. And so when you're evaluating -- when**  
25 **you're making that causation evaluation, is it**

1 correct that you have to have some basic  
2 understanding of the products that a class of worker  
3 or a particular worker used?

4 MR. ROBB: Object to the form.

5 A. Absolutely. You can't make an individual  
6 risk assessment without considering dose. This is a  
7 fundamental tenet of toxicology. So we talk about  
8 the amount of Benzene in Safety-Kleen. We talk about  
9 the amount of Benzene in gasoline.

10 In my report, it's pretty clear about  
11 people who are working with gasoline and what we know  
12 about CML risk and what gas station workers who are  
13 pumping gas with 20,000 ppm compared to  
14 Dr. Kopstein's hypothetical speculative incorrect  
15 1,000 ppm. So this is --

16 MR. ROBB: Move to strike.

17 A. I'm still talking. Thank you.

18 MR. ROBB: Moving to strike your answer.

19 A. So you have, what is it, 1,000 versus  
20 20,000, so you have 20 times the amount of exposure.  
21 We know what the level of the Benzene is in gas  
22 station workers. There are biomarker studies that  
23 demonstrate that these people are not being exposed  
24 above the OSHA permissible limits. And so if gas  
25 station workers aren't, Mr. Campos wasn't. These are

1 all application of epidemiologic principles  
2 understanding dose that's critical to understanding  
3 this case.

4 MR. ROBB: Objection. Move to strike.

5 BY MS. FORGEY:

6 **Q. So even though you're not an industrial**  
7 **hygienist and your area of expertise in this case is**  
8 **not to sit there and look at data and make the**  
9 **precise quantifications, like experts in those fields**  
10 **do, you have a basic understanding of the Benzene**  
11 **content of the product that we're talking about or**  
12 **the substance that we're talking about, correct?**

13 MR. ROBB: Object to the form.

14 A. Yeah. You have to for this type of case,  
15 because if you want to relate Mr. Campos's risk to  
16 something, you have to go to the epidemiologic  
17 literature. So you have to understand what his  
18 workplace activities are and the potential levels of  
19 exposure are and whether or not he's doing something  
20 different than other mechanics or other people who  
21 are working with mineral spirits. And unless there's  
22 not something really unusual, the epidemiologic  
23 literature is going to apply and apply well.

24 **Q. You've never worked at Safety-Kleen,**  
25 **right?**

1 A. No.

2 Q. And Dr. Breece's deposition in this case,  
3 I'll represent to you, was taken yesterday. You've  
4 not seen that deposition, have you?

5 A. That's correct. I haven't.

6 Q. Okay. So you don't have any -- you don't  
7 have any expertise in what may or may not have  
8 happened with Safety-Kleen surrounding these  
9 allegations that plaintiff's counsel is making about  
10 trashing logbooks?

11 MR. ROBB: Object to the form.

12 A. Yeah. I don't know anything about this.

13 Q. You were asked about a statement in an  
14 MSDS. You don't have that MSDS in front of you, do  
15 you?

16 A. Well, I may have it in my folder, but not  
17 the particular one that Mr. Robb is talking about.

18 Q. Sure. And you don't know the basis of  
19 that statement in the MSDS, do you?

20 A. No.

21 Q. You don't know what that statement means?

22 A. No. I mean, it's out of context. I have  
23 no idea. I did ask the question what exactly do they  
24 mean?

25 MS. FORGEY: I think that's all I have.



1 Thank you.

2 MR. ROBB: I have nothing further.

3 THE WITNESS: Thank you.

4 THE COURT REPORTER: Mr. Robb, would you  
5 like me to transcribe this deposition?

6 MR. ROBB: I would. There's no rush on  
7 it. I need an index, obviously. I don't take the  
8 minis anymore. I can't read them. My eyes are  
9 going.

10 THE COURT REPORTER: Do you want just  
11 e-mail version or do you need a hard copy?

12 MR. ROBB: An e-mail. I guess why don't  
13 you e-mail it to me, and then if I decide on a hard  
14 copy, we'll decide. Okay?

15 THE COURT REPORTER: Okay.

16 MS. FORGEY: And we will attach as  
17 Exhibit 12 the objections to the deposition notice  
18 and document request, and we will also ask to be  
19 given the opportunity to read and sign pursuant to  
20 Federal Rule 30.

21 MR. ROBB: And obviously, Miss Court  
22 Reporter, you're going to attach all the exhibits.  
23 Okay?

24 THE COURT REPORTER: Okay.

25 Mr. Colón, do you want a copy of the

1 deposition?

2 MR. COLÓN: No, thank you.

3 - - -

4 And, thereupon, Exhibit No. 12 was marked  
5 for purposes of identification.

6 - - -

7 (Signature not waived.)

8 - - -

9 And, thereupon, the deposition was  
10 concluded at approximately 11:40 a.m.

11 - - -

1 State of Ohio :  
 2 SS:  
 3 County of Franklin:

4 I, PETER G. SHIELDS, M.D., do hereby  
 5 certify that I have read the foregoing transcript of  
 6 my deposition given on May 9, 2014; that together  
 7 with the correction page attached hereto noting  
 8 changes in form or substance, if any, it is true and  
 9 correct.

10 \_\_\_\_\_  
 11 PETER G. SHIELDS, M.D.

12 I do hereby certify that the foregoing  
 13 transcript of the deposition of PETER G. SHIELDS,  
 14 M.D., was submitted to the witness for reading and  
 15 signing; that after he had stated to the undersigned  
 16 Notary Public that he had read and examined his  
 17 deposition, he signed the same in my presence on the  
 18 \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

19 \_\_\_\_\_  
 20 Notary Public

21 My commission expires \_\_\_\_\_  
 22 - - -

CERTIFICATE

State of Ohio

:

SS:

County of Knox

:

I, Ann Ford, Notary Public in and for the  
State of Ohio, duly commissioned and qualified,  
certify that the within named witness was by me duly  
sworn to testify to the whole truth in the cause  
aforesaid; that the testimony was taken down by me in  
stenotypy in the presence of said witness, afterwards  
transcribed upon a computer; that the foregoing is a  
true and correct transcript of the testimony given by  
said witness taken at the time and place in the  
foregoing caption specified.

I certify that I am not a relative,  
employee, or attorney of any of the parties hereto,  
or of any attorney or counsel employed by the  
parties, or financially interested in the action.

IN WITNESS WHEREOF, I have set my hand and  
affixed my seal of office at Columbus, Ohio, on this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
ANN FORD, Notary Public  
in and for the State of Ohio  
and Registered Professional  
Reporter

My Commission expires: April 18, 2016.

A					
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